## **The Economic History of Women in**

## **Newfoundland and Labrador**

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## Abstract

Women's role in the Newfoundland and Labrador labour market has strengthened considerably over the past sixty years. Since 1961 women's participation rate has spiked from 18.4% to 55.1% in 2011, and married men and women now participate in the labour market in almost equal numbers. Women now work more weeks on average than men, are employed in a wider variety of occupations than in the past, and are more likely to hold a university degree than men. Still, in 2011 women earned 66% of men's average annual earnings, worked less hours per week, were engaged in more unpaid labour, and earned less than their male counterparts within occupations in every classification. While important progress has been made, equality has not been reached. This paper considers the history of women's work in Newfoundland and Labrador, and reviews data from the 1961 to 2011 Census of Canada to explore the factors that continue to push down women's incomes relatively to men's.

## I. Introduction

In 1867 women in Canada were legally defined as second-class citizens. Unable to vote or divorce, women were considered property, first of their father and afterwards, of their husband. Over the past 150 years women have made bold moves to redeem their fundamental rights and have broken down significant barriers to equal education and employment rights. Yet the full social, economic and political equality of the sexes has yet to be realized. This is demonstrated today in the stark difference between what men and women earn. In today's calculated culture, the gender wage gap defines the legacy of discrimination that has held women down, that women have fought through but have not yet destroyed.

Following economic theory equating wages to marginal productivity, there are many factors that determine one's wages including education, occupation, industry, job tenure, and market structure. To better understand Newfoundland and Labrador's gender wage gap, data collected by the Census of Canada on men and women here in the province with respect to several of these factors will be considered to provide a framework for further economic analysis into this province's gender wage gap. Given that such data discussed here begins in 1961 at the earliest, a brief economic history of women in Newfoundland and Labrador will be provided to give context to the province's labour market.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> It must be noted that the Census of Canada does not define 'men 'and 'women', however, the Census is completed by the individual so it is assumed that this is an inclusive definition of self-identified men and women. The Census has no third category for those who identify as 'other.'

## II. Brief History of Women in Newfoundland and Labrador

When the colony was first settled, women were largely considered a secondary component of the Newfoundland and Labrador labour market by the ruling government. Once the British began pursuing policies to have men in the colony yearlong in 1611, women were brought over to simply help settle them in (Porter, 1998). These women were meant to be wives and the colony pursued policies of sending single pregnant women home through the 17<sup>th</sup> and 18<sup>th</sup> Century as they were considered drains on the system (Cadigan, 2009).

Women's work in sustaining the family enterprise was instrumental in settling onto the island. Often described as "the rock" because of its stiff land and poor soil, women's role in ensuring the family was fed was no small feat. To provide food for their family, women were involved in every step of production from raising the raw product to preparing food for consumption, including growing the vegetable garden, tending the livestock, making their own yeast, fetching water, and churning butter. Women also prepared the meals, which required a skilful understanding of how to fill the family while also rationing food for the tough winter ahead, and amidst all the summer labour, made time to cook up seven 'cups' a day for the fishermen (Hussey, 1998).

Women also worked as tailors, sewing and darning clothes for their family; they were soap manufacturers, boiling down collected fats; childcare providers, usually of large families; doctors and midwives; and house cleaners, performing a rigorous spring cleaning every year that included repapering their houses and washing everything top to bottom. (Porter, 1998; Hussey, 1998).

During the summer months, when men went out on the water to fish, women took over the shores. This 'shore work' included the heading, gutting, splitting, curing and drying of the fish that was caught. This required experience and skills to slice open the fish correctly, and forecast the weather conditions for optimal drying. Some estimates suggest that this process increased a family's income by 50%. Local men valued this contribution and when asked, always gave women

credit for doing at least their fair share of work in the household with what has been described as a feeling of awe (Porter, 1998).

Women's work within the fishery, however, did not gain the same remuneration as men's. When children were employed, boys were given their share of the catch, while the daughter's contributions were given to her father. This was driven by patriarchal notions that men must earn money to support a future family, while women would move to another family as their role changed from daughter to wife (Porter, 1998).

Within the home, however, getting her share of earnings mattered less if the woman controlled the household's purse. While earnings from the season's catch were given to the fishermen, men often passed these earnings on to their wives. Women earned their own money as well by collecting berries in the summer. This 'berry money' provided the family with a little cash to insulate them from the truck system, as fishermen's earnings generally came in the form of credit to their local merchant. Women's important role in the survival of the family did give them a certain authority within the household, and women were often in charge of handling the family's finances. While they sought permission from their husbands for larger purchases, researchers on the south coast found that this amounted to little more than a rubber stamp of approval, while the 'berry money' women earned was theirs to spend as they wanted to (Porter, 1998).

Outside authorities did not recognize women's economic contributions, and counted the family as an economic unit, headed by the man who received all the credit for the family's work, and thus underestimated women's contributions to the fishery. In 1935, the Newfoundland census stopped counting women who worked on family farms or on the shore as part of the province's labour force, despite their significant contribution to the quality of fish (Forestell, 1998). When Newfoundland joined Canada, the Canadian Census similarly did not count women who worked part-time on a family farm or business without pay as a member of the labour force until 1976(Statistics Canada, 1999: 273). This wilful act of ignoring women's work exemplifies the social norms and government policies that have historically discounted women's contribution to the economy.

Some evidence suggests that the general male population may have had more respect for their female counterparts than the overruling government and merchant classes. In her book *More Than 50%*, Murray (1979) describes the considerable work that women in outport Newfoundland performed and the sincere respect they received from the men in their community. Cadigan (1998)

discusses a rare case of two men being publicly whipped for what he argues was for having strong willed wives. The state would not take its vengeance out on the women, but instead "were trying to whip the two delinquent patriarchs into shape" (Cadigan, 1998: 59). In contrast, Firestone (1967) found that women's obedience to their husband's commands was an example of how women were subservient to men and within the legal system, women were considered subordinate to their husbands for a considerable part of history. Porter (1998), however, argues this willingness to jump to a man's request was more a testament to women's unique skills in managing the home. She discusses how in outport communities the kitchen was a key part of the 'public' and 'private' spheres. Since the kitchen was women's domain, they were able to maintain their presence in men's conversations, and actively participate in decision-making. These studies suggest a more respectful and equal distribution of labour and authority than outside authorities approved of in their colonized Newfoundland.

During the period between the wars, women became more engaged in the paid labour force. A woman's decision to engage in paid labour in or outside the home was largely determined by her age, marital status, and class background. Young, single women were especially encouraged to find jobs before they were wed and consumed with familial responsibilities. These single women were still tied to the family, and their earnings were necessary for the family's survival. This was emphasized by a member of the Newfoundland House of Assembly in 1935 who explained, "Families who formerly were in straitened circumstances because they had no breadwinner but a man, are now in comfort through the industry of young women and girls" (Forestell, 1998:80). During the Great Depression, working daughters became vital to the family as unemployment rates increased and the proportion of households with a working daughter and unemployed father rose from 3.7% in 1921 to 13% in 1935 (Forestell, 1998:80).

In 1921 and 1935 women who were never married made up 93.0% and 91.2% of working women respectively, while married women were 1.6% and 2.4% of the total (Forestell, 1998: 78). During this time period it was generally assumed that once a woman was married, she would leave her place of employment, and supported by her husband, she would be able to fully commit to her household responsibilities. The social norm of married women working only within the home was an unwritten rule in the private and public sector before being formalized in 1933 when the Commission of Government declared, "On marriage, a woman civil servant shall retire from office

unless it is definitely in the interests of the Public Service that she should be retained for a further period" (PANL, 1933).

The reality of the husband's wages, however, were often less than required to sustain the family, forcing women to make up the difference by returning to work, often from the home, for meagre wages. These women were often older without very young children, and sought part-time employment that allowed them close supervision of their home (Forestell, 1998).

Where a woman worked also depended on her class – middle-class women with access to education generally sought after teaching, nursing, or secretarial positions, while working-class women were more likely to work as domestics, in factories, or as sales clerks for much lower pay. These low wages tied these women to the home and gave them less independence than their male counterparts. Those women who lived independently as boarders were more likely to be above 25 and work in white-collar jobs, suggesting their higher wages gave them more freedom to live alone. The rare woman who headed her own household was generally older, suggesting she did not have parents to support, prospects of marriages, or was widowed or divorced. These older women were generally more entrepreneurial, maybe taking over their husband's business, operating as small retail outlets or working as dressmakers, allowing them to still work within their homes (Forestell, 1998).

In rural Newfoundland and Labrador, wage labour was often unavailable for women. Some families would send their daughters off to St. John's to make money, while many others simply went without. The company towns that began cropping up across the province in the 20<sup>th</sup> Century, including Grand Falls, Stephenville, and Labrador City, were key opportunities for both men and women in rural areas. Still, these opportunities tended to be an extension of the patriarchal division of labour that permeated the labour market and women rarely benefitted from the primary, well-paid occupations.

Grand Falls began as a one-industry town centred on the pulp and paper mill in the early 1900s. Since then it has expanded to a regional centre, complete with a school and hospital. It is within these institutions that women have found the most employment. This employment tends to be extensions of their traditional duties as care-givers and helpers as women gravitate to such work as teachers and nurses. These jobs are secure, pay fairly well, and are deemed socially acceptable as they represent expansions of women's work within the home (Dettner, 1998).

The introduction of the American military base in Stephenville in 1941 and the new opportunities for wage labour offered to women attracted them from all across the province. However, here as well, women's work was narrowed to the service sector, and generally consisted of cleaning up after the military men for low wages and without opportunities for promotion. Once the Americans left, taking the employment opportunities with them, many women were left behind in abject poverty (Benoit, 1998).

When the Iron Ore Company of Canada (IOCC) began mining iron ore in Labrador in the 1960s they built a town around the mine to accommodate their employees. Heavily controlled by the IOCC, the policies enforced in this town exemplify the "second-class" citizenship that overruling authorities instilled on women. By building the community and selling it back to their employees, IOCC was able to dictate what happened within the home and enacted rules that prevented residents from making a profit on an IOCC house through renting or establishing a business. These rules meant women were unable to partake in craft production, establish daycares, or seek employment at the mines if they had their own children to care for, thus effectively trapping women and ensuring their dependence on the male breadwinner. Despite the company's affirmative action program, by 1990 women made up just 7% of the labour force, and 4% of the higher-paid "non-traditional" fields. The few women who found employment were often harassed in their workplace and in their communities for 'taking men's jobs' (Parsons, 1998).

As a small colony and trading country, Newfoundland was heavily influenced by global events and external markets. While trade had slowed during the Second World War and the overruling Britain had suffered from the Sterling Crisis, the end of the war in 1945 and the full-convertibility of sterling arranged in 1947 meant an expansion of Newfoundland's fish market. While in 1947 salt codfish accounted for near 60% of fish exports, hopes were pinned on the U.S. fresh and frozen fish markets, and many large companies began to invest in frozen fish technologies (Alexander, 1977). In the 1940s fish plants began popping up all along the island's coast. These plants offered women new opportunities to earn a wage and despite the harsh conditions, working long hours standing in one spot, hands immersed in cold water making monotonous motions, the labour supply was greater than demand (Women's Unemployment Study Group, 1983). Some communities co-opted these plants, sharing shifts so each employee worked enough to get their EI stamps. Others were more competitive, and when it was time to lay people off, women were often the first to be let go (Robinson, 1998).

While the increase in wage labour offered women more opportunities to increase their financial independence, the introduction of wage labour for women in the family enterprise system resulted in a symbolic devaluation of women's work in the home. Previously women working in the home saw themselves as multi-talented labourers who were sustaining their families, but increasingly throughout the 1950s and 1960s those who did not work outside the home saw themselves as "just housewives" (Benoit, 1998: 118). Women who entered the wage earning labour force were still responsible for maintaining the home, and this created a 'double shift' as women worked both inside and outside the home. This double responsibility is a key factor in why women are more likely to work part-time or piece work. While economic union with Canada in 1949 reduced the cost of many consumer goods in Newfoundland and Labrador, families became increasingly dependent on these consumer goods designed to simplify their lives, and women felt their hard-earned skills grow defunct and the toil of housework become increasingly monotonous and isolated (Benoit, 1998).

Those women who relocated for work, especially, lost the resources of their community, and were very isolated in their new homes. Rather than helping the many single women and mothers develop a caring community, the Welfare Department kept close eyes on women living alone and enforced rules that kept them separated. Women were not allowed to live co-operatively with a friend or relative, regardless of gender or income. If a woman lived with a man, her social assistance benefits were taken away entirely. If she lived with family, her benefits were severely reduced to the point of inadequacy. If she worked part-time or piece meal, her benefits were slashed at a rate of 100%. By reducing options for women to work and receive benefits, women were kept isolated in their homes and they often lived in lonely poverty (Benoit, 1998).

As education and incomes increased, the 1960s and 1970s saw the birth of second wave feminism and push for women's rights in North America. These changes were slow to come to Newfoundland and Labrador, but did creep their way in as radio and television allowed rural communities better access to the outside world, and many women, especially in rural areas, began to want for more. In the 1990s Davis (1998) returned to a community on the South Coast, where she had previously done fieldwork. Devastated by the cod moratorium, the community had metamorphosized, and the young women spoke of their ambitions to gain employment. The options they considered were traditional – nurses, teachers, social workers – but the difference was they were eager to earn an independent living. To achieve their goals, they were resigned to move, and explained to Davis, "there's no future here. Things have got to change. There is nothing here" (Davis, 1998:285). These anxieties speak to growing recognition of the lack of opportunities for women in rural areas, which is a significant reason for the low participation rates of women in these areas.

The history of women's work in Newfoundland and Labrador highlights how important women were to the sustenance of the family, and how these skills became devalued throughout the 20<sup>th</sup> Century. While Murray (1979) found women were "more than 50%" of the labour force in Elliston in the 1950s, the Canadian Census of 1951 stated only 16% of women in Newfoundland and Labrador participated in the labour market (Statistics Canada, 1965: Table 1). When women increasingly began to seek more formal careers in the 1980s, their occupation choices were narrow and the burden of caring for the family and home remained. By 2011, cultural notions of traditional gender roles have started to shake and women are entering a larger range of careers, but as the gender wage gap remains, more work is yet to be done.

## III. The Gender Wage Gap

Women's traditional role as homemaker and their gradual introduction into the workforce is a common story across North America and the history of women's labour market participation in Newfoundland and Labrador has parallels with the history of women across the country. Despite significant progress in women's rights over the past century, this history has culminated in today's gender wage gap, where women earn a portion of men's salaries. Women's lower earnings mean that women are at a higher risk of living in poverty and the many social and health problems that are associated with having low income.

Economic theory suggests that workers are paid wages equal to the value of their marginal productivity. Individual worker productivity is determined by a myriad of factors including labour force status, duration of work, occupation, industry, education, willingness to accept risk, and location. Other external factors affecting wages are market structure and labour market discrimination.

The relative importance of these productive characteristics is uncertain however. Many economists use the Blinder-Oaxaca decomposition to compare the differences in these productive characteristics to explain the gender wage gap. By controlling for productive characteristics as outlined above, the formula is meant to separate the wage gap between pre-market characteristics and unexplained variation, the latter implying some sort of labour market discrimination. While this analysis will not be delving into such econometric methods, no such analysis of wages in Newfoundland and Labrador has been performed and further work in this area would provide a better understanding of the province's gender wage gap.

In their breakdown of factors affecting the gender wage gap, Morissette, Picot and Lu (2013) found that differences in education accounted for 15.8% of the gender wage gap from 1981 to 1998, but that this had decreased to 10.5% from 1998 to 2011. Vincent (2013) similarly found that while the gender wage gap has decreased over the past 30 years, the percentage of unexplained variation had increased to 85% by 2008. Mulligan and Rubinstein (2008) found that the change in the composition of the female workforce, due to increased human capital investment, labour force attachment and women's self-selection into the labour force, from the late 1970s to the late 1990s, is responsible for women's relative wage growth. In their global gender gap report, the World

Economic Forum placed Canada 30 out of 145 countries in terms of gender equality, a significant drop from 2006 when it placed 14<sup>th</sup>. The country ranked well in terms of educational attainment and the number of professional and technical workers, but placed 80<sup>th</sup> for wage equality for similar work (Global Gender Gap Report 2015, 2015:133). Other economists have attempted to hone in on specific issues, which will be discussed in turn.

To better understand the gender wage gap, this paper will review the history of women's labour market participation by considering labour force activity, marital status, weeks worked, occupation and education of men and women in Newfoundland and Labrador using data from the Census of Canada from 1961 to 2011.

## IV. Census Data

The Canadian census is the oldest continuous data publication in Canada. It considers many aspects of Canadian life including the labour market, business performance, and community profiles. The Census of Canada is a mandatory survey and generally has between a 97% to 100% response rates. The 2011 National Household Survey (NHS) represents a break from the Census of Canada, as it was a voluntary form that received a response rate of 68.6% (Statistics Canada, 2016c). The non-response rate resulted in the underrepresentation of marginalized groups such as those with low-income, less education, visible minorities, aboriginals, and students (Lezubski, 2015).

Census data were used over Labour Force Survey data because of its longer timeline and larger sample size. Originally the two were considered incompatible as there were differences in timing of enumeration and in coverage (Statistics Canada, 1965b:XV). However, over time the Census has been changed to more closely resemble the LFS (Statistics Canada, 1999). The differences between the two include such aspects as:

- 1. The LFS is conducted by interviewers, while the Census is filled out by the individual.
- The LFS collects information on labour force activity of persons who held a job in the past 5 years, while the Census considers only those who worked since the beginning of January the year before.
- 3. In 1961 and 1971 the Census had a 33<sup>1</sup>/<sub>3</sub>% sample size, which was reduced to 20% thereafter (Statistics Canada, 1984). The absolute number of people varies based on population but has averaged at about 80,000 people from 1961 to 2011. The number of men and women sampled over the time period is presented below. The LFS considers a smaller sample size of 2,000 (or approximately 1% of the population 15 years and older) households in Newfoundland and Labrador (Statistics Canada, 2016a: Table 4.1).



Figure 1. Source: Appendix - Population

# V. Newfoundland and Labrador's Labour Force

This paper seeks to present an overview of men and women's involvement in the Newfoundland and Labrador labour force by considering income, labour force activity, duration of work, occupation and education. This is not a comprehensive study, as more data is available, including that of industry, class of worker (self-employed or wage-earner), unpaid labour, and further detail into labour force activity by marital status and presence of children. Further investigation into these areas would be beneficial for a more thorough understanding of men and women's earnings.

## VI. Income

The earnings recorded by the Census of Canada is defined as the total amount of money reported by the wage-earners as cash wages and salary based in the dollar amount of the year it was collected. This is an imperfect comparison of individual worker productivity, as the average earnings do not take into account the number of hours or weeks that a person worked. Most economists prefer comparing wages, as they are a better representation of a workers' value of marginal productivity. Despite these flaws, average annual earnings is considered in this analysis because (1) the Census does not collect data on hourly earnings and (2) the use of annual earnings gives us a better idea of how factors that prevent women from participating in the labour market on the same scale as men, such as the double shift, affect women's earnings.

The income data has been adjusted to 2015 based on the inflation calculation as used by Statistics Canada according to the most recent Consumer Price Index (CPI), which uses 2002 as its base (Statistics Canada, 1996). The CPI provides an index of price changes over time, but not price levels. The annual CPI for Newfoundland and Labrador is available only for the years 1979 to 2006, so data for 1960 and 1970 will be adjusted using the Canadian CPI (Statistics Canada, n.d.). The use of Canadian CPI has likely overinflated incomes for these years, as it measures a different basket of goods than the Newfoundland and Labrador CPI. In 1979 Newfoundland and Labrador CPI was 2 points higher than the Canadian and while the province has always had slightly higher prices, the difference is generally by less than 5 points.

The Census also breaks the number of wage-earners into several income brackets. This would be interesting for further investigation to better understand the proportion of men and women who would be considered low- or high-income. Evidence from Statistics Canada's (1980) study of Canada's female labour force suggests that women whose husband earnings' are in lower income brackets are more likely to work to support the family, but more recent evidence by Mulligan (2008) from the 1990s suggests that women who earned higher education, and therefore have a higher opportunity cost, are more likely to participate in the labour force.

Income earnings based on location are also available and would be a good avenue for future investigation, as economic opportunities are a key factor affecting women's earning potential. Women in rural areas are more likely to be affected by imperfect market structures like monopsonies and the lack of economic opportunities in rural areas has the potential to negatively affect their labour market participation and earnings.

#### A. Average and Median Income Wage Gap

Due to the limitations of using Census data discussed above, annual earnings were solely considered. Data were taken from the respective Census year and references can be found in the Appendix. Average earnings were given for every year from 1961 and median earnings began to be measured in 1971. While this analysis considers full-year, full-time income by occupation to compare individual worker productivity, the prevalence of women in part-time work and the increased likelihood of men working long hours is a gender issue that affects the earnings of men and women. To limit the sample size to those who work full-time and full-year would negate the effect that working less has on women's income. To take this data further and control for those working full-year, full-time would be a key next step for this gender analysis.





Even when adjusted for current prices, the annual earnings of men and women in Newfoundland and Labrador have significantly grown over the past fifty years. A woman in 1960 would have earned just \$11,611, while a man earned double on average, or \$22,763. By the 1980s men were earning more than \$30,000 a year, while women were averaging at just under \$20,000. Men and women's incomes continued to increase over the next two decades and by 2010, women were earning \$29,819 on average, or 66.1% of men's annual earnings of \$45,138.

When we consider the gender wage gap, shown as the ratio of women to men's annual earnings, the difference in men and women's wages is apparent. In 1960, women earned just 51.0% of men's wages on average. Despite a brief dip in 1970 when women earned 47% of men's annual earnings, women's average earnings have tended to gradually increase over time relative to men's but have not reached equality and in 2010 women were earning 66.1% of men's annual earnings on average.





Men and women's median earnings are generally lower than average earnings and do not show the same annual growth as average earnings, suggesting more people work in the lower income brackets than in the higher and their incomes are fairly volatile. 1970 is the only year where median earnings were higher than average, and this was only true for men.

The gender wage gap in median earnings has tended to be larger than for average earnings, suggesting more women have low-incomes than men. In 1970 women's median earnings were \$8,357, or 22.9% of men's. Women's median earnings did rise thereafter, and in 1996 the parallel rise of women's median wages and decline of men's closed the gender wage gap to 76%. This year was an anomaly, however, as the trend of women earning 50 to 60% of men's median earnings returned in the following years, and by 2010 women's median earnings were \$21,787, or 63.8% of men's median annual earnings.

#### **B.** Incidence of Low Income

The definition of low income changes based on family size and location, as larger families benefit from economies of scale and the cost of living can vary based on size of locality. The Census of Canada has provided increasingly detailed data on the incidence of low income across and within provinces since 1961. With a varying low income cut off based on the size of the family unit and the size of area of residence, this paper does not consider the proportion of men and women defined as low-income due to the complexity of the data but further investigation into this area would be beneficial for future research.

#### **C. Nonwage Benefits**

One explanation provided for women's lower earnings is their preference for nonwage benefits (Filer, 1983). These employee benefits can include health insurance, retirement benefits, daycare, sick leave and paid vacations. Some evidence suggests that women are more likely to have nonwage benefits. When investigating the percentage of tax filers contributing to a Registered Retirement Plan, Morisette and Johnson (2005) found that from 1986 to 2001 RPP coverage for men fell by more than 10%, while women saw a moderate increase in coverage. Further investigation into this area may provide more insight into Newfoundland and Labrador's gender wage gap.

## VII. Labour Force Activity

Labour force activity is defined as the proportion of the population engaged in the labour force, by either working or looking for work. Labour force activity data is derived from the year it was collected. Information on the characteristics of people looking for work and those not in the labour force is also collected by the Census of Canada. By considering educational attainment, age and marital status the Census of Canada has created a complex profile of those operating outside the labour market, which would be an interesting avenue for further analysis.

#### **A. Participation Rate**

The basic theory of labour market participation is derived from the income-leisure choice framework, which considers an individual's labour supply as a function of the prevailing wage rate. According to this theory, each individual has a reservation wage that determines whether they will enter the labour market and how much they will decide to work given the prevailing wage rate.

The participation rate is measured as the total labour force divided by the total population aged 15 years and older. The labour force is defined as all persons 15 years and over who in any industry for any period of time or who reported looking for work at the time of the census enumeration (Statistics Canada, 1965c).





Over the past fifty years, women's participation rates have tripled from 18.4% in 1961 to 55.1% in 2011. Much of this growth occurred in the 1970s and 1980s as women's participation rate nearly doubled from 18.4% in 1961 to 31.9% in 1976 and had reached 53.7% by 1991. Over the next two decades women's participation rate stayed fairly steady at around 53%, and peaked at 55.1% in 2011.

Men's participation rates have been fairly consistent over this time period and have tended to hover around 65%, with year to year changes largely reflecting the availability of economic opportunities. Men's participation rates gradually increased from 64.4% in 1961 to a height of 71.8% in 1981. As the cod moratorium devastated the local labour market, men's participation rate declined in the 1990s, and averaged at 63% from 1996 to 2011. While women also saw a slight decline in participation rates over this time period, from 53.7% in 1991 to 49.7% in 1996, they recovered faster and by 2011 the gap between men and women's participation rates was at its most narrow with 55.1% of women participating in the labour market and 63.9% of men.

The income-leisure model argues that women's participation rates are lower because women have a higher reservation wage. This is especially true for married women with children as it reflects the higher value of their work at home. Evans (2002) found that when mothers are employed, they are more likely to work part-time than fathers. Empirical evidence suggests that women have a higher uncompensated and compensated wage elasticity of supply than men, that is, an increase in real wages results in a more substantial increase in their labour supply (Hansson, 1985). Given that childcare is a fixed cost that is disproportionately borne by women, this creates a trench-like effect in women's labour supply schedule as the fixed cost raises women's reservation wages and decreases the likelihood of part-time work, but increases the likelihood of working many hours when women do enter the labour market. This suggests that the lower participation rate of women may be due to the lower wages they receive. However, the disproportionate effect of age on women's participation rates suggests that there are other factors, like family formation decisions, at play. Vincent (2013) investigated a global phenomenon where women who have children earn less than women who do not, suggesting reduced wages is the cost of maternity.

The need for affordable, accessible child care as a prerequisite to entering the labour force was a key part of the second-wave feminist movement. In the conduction of the Royal Commission on the Status of Women (RCSW) during the 1960s, several women's organizations submitted reports arguing that high child care costs were preventing mothers from entering the labour force, especially those in lower income brackets (Friendly, 1994).

In 1970 the RCSW recommended the introduction of the *National Daycare Act* and the movement for universally accessible child care grew throughout the 1970s and 1980s, with all three federal political parties promising to improve child care in the 1984 federal election (Friendly, 1994). The following decade, however, saw a series of federal cuts and with the increasing decentralization of the Canadian welfare program in the 1990s, child care became a provincial, rather than a national, issue (McKenz, 2014).

Provincial child care policies have remained fairly limited across Canada, with the unique exception of Quebec. In the 1990s, most provinces offered fee subsidies for low income families, but these were heavily dependent on federal funding and in five provinces, including Newfoundland and Labrador, the subsidy was available for a limited number of families and was not proportional to parental or community needs (Doherty-Derkowski, 1998).

Oxfam counted Quebec's low-fee childcare program as a best-practice example of reducing the unpaid work burden that prevents many women from finding stable, long-term employment. They also identified Canada's absence of a national childcare program as a key factor inhibiting women's labour market participation across the country (Wakefield, 2014). The effect of an increase in affordable child care on women's participation rate was considered by Baker et al. (2008) using the unique Canadian case of Quebec. The Quebec Family Policy began in 1997 with full-day kindergarten and gradually grew to become truly universal with \$5 per day child care for all children from 0 to 4 years old in 2000. Over the following decade, Baker et al found a significant increase in the use of child care and a 7.7% increase in married women's participation rate. However, this change suggested an elasticity of maternal work that was lower than the literature suggested, and more women took advantage of the program than entered the labour force. There was a 3.5 increase in average weeks worked, and the program did function to encourage more full-time than part-time work, but it did not greatly boost women's participation rate and Quebec currently has a lower female participation rate than the Canadian average (Statistics Canada, n.d. b). The limited effect of the child care program on women's labour market participation in Quebec suggests that women's reservation wage may still be higher than what they are being offered in the labour market.

The Women's Unemployment Study Group (1983) also cited many problems with the conduction of the participation rate. In the early 1980s Statistics Canada tallied the number of women in the labour force by considering how many women went to a "Manpower" Centre at least once a month looking for a job. This excluded women who were unable to travel to such a centre because of lack of childcare or public transportation, and the men and women who had given up looking for jobs because of the disheartening lack of prospects.

#### **B.** Employment Rate

The employment rate is measured by the number of people employed divided by the labour force, and this rate began being tabulated by the Census of Canada in 1971 (Statistics Canada, 1976e). Persons employed consist of three categories: (1) persons who worked in reference week for pay or were self-employed; (2) persons who worked in the reference week without pay in a family farm or business (this excluded women working less than 20 hours until 1976); and (3) persons with a job but who did not work during the reference week (Statistics Canada, 1999: 273).



Figure 5. Source: Appendix – Labour Force Activity.

Averaging at 57% from 1971 to 1981, men's employment rate fell to 52.9% in 1986 and continued to decline, reaching a minimum of 46.1% in 1991. Men's employment rate did rise thereafter, but have not yet recovered to 1970s levels and in 2011 was 53.3%. While men's employment rate has fallen over the past 40 years, women's have seen substantial growth, rising from 24.2% in 1971 to 48.3% in 2006. Again, the cod moratorium of the 1990s is obvious in its negative effect on men's employment rates, and while it did slightly affect women, the effect was much smaller and the gap between men and women's employment rates narrowed in the 1990s and 2000s.

It should be noted that because of seasonal employment, reference week stats can be bounced around from censuses, though each Census is generally conducted the first week of June when seasonal employment is in full swing in Newfoundland and Labrador.

In their cross-country analysis of gender wage gaps, Olivetti and Petrongolo (2008) found female employment rates were negatively correlated with the gender wage gap. They theorized this was because in countries with lower female employment rates, those women who were employed had relatively high-wage characteristics and those with low-skills were not participating in the labour market.

#### **C. Unemployment Rate**

The unemployment rate is measured by the number of people unemployed divided by the number of people in the labour force and was first introduced in the 1971 Census of Canada (Statistics Canada, 1976e). The 'unemployed' category consists of two groups: (1) persons looking for work during the reference week and (2) persons who were temporarily laid off for less than 30 days during the reference week. Those looking for work include those who are sick or believe that there is no work available in their area (Statistics Canada, 1999: 273).



Figure 6. Source: Appendix – Labour Force Activity.

In 1971 men and women's unemployment rate was at its lowest levels, with men's unemployment rate at 9.9% and women's at 7.5%. Over the next twenty years men and women's unemployment rates steadily increased, peaking at 28.4% for men in 1991 and 27.1% for women

in 1986. Since 1991, women's unemployment rate has declined at a faster rate than men's and by 2011 16.5% of men and 12.4% of women in the labour force were unemployed.

Women's lower unemployment rate may be a factor of their lower participation rate and increased likelihood of moving out of the labour force if they are unable to find employment. Compared to the rest of Canada, unemployment rates for both groups are fairly high, which may be due to the seasonal nature of employment in Newfoundland and Labrador.

#### **D.** Unpaid Labour

Census data considering unpaid labour began in 1961 as unpaid family members who contributed to operating a farm or business (with the exclusion of housework) were counted as a subsection of class of worker. This exclusion likely underestimates those women who worked in the family enterprise as female farm labourers were not considered employed until 1976 (Statistics Canada, 1999: 273). In 1996 the Census began collecting more detailed information on the type of unpaid housework men and women were doing, including time spent caring for children, seniors and the home.

Traditionally, caring for children, seniors and the home has been an important part of women's work in the family enterprise and time spent performing these tasks likely influences women's lower participation rates in the past and in the present (Women's Unemployment Study Group, 1983; Lahey, 2015). Time-budget evidence suggests that women still bear the brunt of home care responsibilities, despite increasing employment rates. Women in Canada spend an average of 50 hours a week as primary caregivers for children, which is twice as much as men (Vincent, 2013). A 2010 survey by Statistics Canada found that women in Newfoundland and Labrador spend more time performing unpaid household work in their own homes than in any other province in Canada, averaging at 33 hours a week, while men performed 17.2 hours of unpaid household work a week (Lahey, 2015).

The effect of unpaid labour on a woman's earnings can become a self-fulfilling prophecy as time spent performing unpaid labour is negatively correlated with earnings. If women already earn less than men, then the household may decide that she should decrease her working hours to perform more unpaid labour as there is a lower opportunity cost of doing so. This can result in further reducing women's earnings and opportunities for advancement in her career (Evans, 2002; Albanesi, 2009; Mulligan, 2008).

Care work is vital to a healthy society and is very difficult to minimize or replace. Women with children or elderly parents often have to choose between working and paying high wages to have others care for their families. This raises women's reservation wages more than men's, as women typically bear the brunt of this work. Those women who choose to work within the home are effectively subsidizing the economy and it is estimated the monetary value of this work is anywhere from 10 to 50 percent of GDP, depending on the country (Wakefield, 2014). More research into women's unpaid labour would provide a better understanding of all the work that women do.

# VIII. Labour Force Activity by Marital Status

Data on participation rates by marital status are available from 1971 to 2006 and data on absolute numbers of wage earners by marital status is available from 1961 to 2006 in the Census of Canada. The 1961 and 1971 Census defines married people as including those who were separated but not legally divorced (Statistics Canada, 1965a; Statistics Canada, 1976). The 1976 Census introduced Separated as a category of couples who had parted but not obtained legal divorce. The definition of marriage was also expanded in 1976 to include those living common-law (Statistics Canada, 1978). In 2006 the definition of marriage and separated was slightly changed to "married, spouse present" and "married, spouse absent," and these were included in their respective previous classifications (Statistics Canada, 2009a). Data on labour force activity by marital status was not available for 2011.

#### A. Single (Never Married) Persons



Figure 7. Source: Appendix - Labour Force Activity by Marital Status.

The participation rate for men and women who have never been married has tended to be closer than for the total population. In 1971 the participation rate for single women was 42.2% and men's was just 6 points higher at 48.5%. While men's participation rate stayed above women's from 1971 to 2006, the distance between the two did decline over time and by 2006 it was just 1 percentage point, as the participation rate for single men was 58.4% and 57.5% for women.

From 1971 to 1986 the participation rate of single women was greater than that of women on average, which is expected as many of these women were younger, without children or a husband, and so it was more socially acceptable for them to work. In 1991 the average participation rate of women had risen above that of single women and remained so for the rest of the time period. In contrast, the participation rate for men was higher than that of single men for the entire time period.

#### **B. Married Persons**



Figure 8. Source: Appendix - Labour Force Activity by Marital Status.

The participation rate for married men in Newfoundland and Labrador has always been higher than the average for all men, peaking at 80.4% in 1981 before steadily declining to 67.7% in 2006. The participation rate for married women, however, has gradually increased from 21.3% in 1971 to 60.3% in 2006. This may reflect growing opportunities for married women, and may coincide with the declining fertility rate, as women who have fewer children are better able to participate in the formal labour force.

In the 1970s the Census of Canada began considering data with respect to the female labour force by presence of children, and this data has become increasingly more detailed over time. Since 1976 the number of dual-income families with children in Canada has doubled from 36% to 69% in 2015. Most of this growth took place from 1976 to 1989, when the percent of dual-income

families rose to 60% (Statistics Canada, 2016). This coincides with the rise of married women's participation rate, which grew fastest from 1971 to 1986.

Literature on the subject suggests that for couples, having a child makes men more likely to be employed, while it makes women less likely to be. While prolonged withdrawal from the labour market for women in Canada is relatively rare, the expectation that women will withdraw from the labour market for family reasons can hurt women's opportunities for promotion in their careers (Evans, 2002).

However, while married women are entering the labour market in greater numbers, they are not necessarily gaining high-income employment. In their analysis of the gender wage gap, David and Lux (1977) found that when married women were removed, the gender wage gap significantly narrowed from 51% to 87% of men's earnings. This is because divorced and widowed women earned much higher incomes, arguably because they are more integrated into the labour market. The stark difference between married and divorced or widowed women suggests a subtle discrimination, where women have trouble reconciling their dual roles as wives and mothers, with active labour market participation (David, 1977). Data on earnings by marital status is available in the Canadian Census, and further investigation into this area would be beneficial for deeper analysis.

#### **C. Widowed Persons**



Figure 9. Source: Appendix – Labour Force Activity by Marital Status.

The participation rates for widowed men and women have been fairly low over the time period, potentially due to the older age of widowers, though this data considers all persons in the labour force 15 years and over. In 1971 25.4% of widowed men and 12.1% of widowed women were participating in the labour market. The gap between the participation rates has considerably declined from 1971 to 2006, largely due to a decline in the participation rates of widowed men, which fell to 13.8% in 2006, while widowed women's partipation rate stayed fairly steady, ending the time period at 10.9% in 2006.
### **D. Separated and Divorced Persons**

Divorced persons refer to those who have legally separated from their partners and data are available on this population from 1971 to 2006. Separated persons is defined as those who are married but self-identify as being separated from their partners and data on this population are available from 1981 to 2006. While not a common practice in the 1970s, the number of people divorced or separated in Newfoundland and Labrador has risen from less than 500 in 1971 to near 8,000 by 2006.



Figure 10. Source: Appendix - Labour Force Activity by Marital Status.

The participation rate for divorcees is lower for men and higher for women than the average for all men and women. In 1971 there was a 21 point difference between men and women divorcees' participation rates, which were 69.2% and 48.1% respectively. Over time divorced women's participation rates rose to a peak of 65.1% in 1991 before declining slightly thereafter. The participation rate of divorced men peaked at 80.2% in 1981 and declined at a greater rate than

women's, so by 2006 there was less than a 1 point difference between the two, with participation rate for women divorcees' at 56.7% and men's at 59.6%.



Figure 11. Source: Appendix - Labour Force Activity by Marital Status.

In 1981the participation rate for separated men was much higher than for women at 72.3% and 48.3% respectively. The participation rate of separated people has tended to closely match that of the working population, and as women's participation rates rose and men's declined from 1981 to 2006, so did that of separated men and women, and by 2006 the gap between the two had declined to just 7 points, with separated men's participation rate at 64.7% and women's at 57.9%.

### X. Duration of Work

Across Canada, women are more likely to work part-time, while men are more likely to work full- and over-time. This has consequences for women's income, as they earn less throughout the year. David and Lux (1977) found that by holding duration of work constant women's earnings rose by 16.5%, exemplifying the negative effect of part-time work on women's earnings. This income effect is compounded by the reduced ability for women to collect employment insurance when they work part-time as lower weekly wages reduces unemployment premiums. This makes women less secure in unemployment than men and can cause a ripple effect, where women are less able to wait for good jobs and are more likely to take what is available, however poor the job prospects may be (Lambert, 2016). Working part-time also affects women's promotional opportunities, as many firms expect their employees to work full- or over-time to show their commitment to the firm before receiving promotions (Vincent, 2013).

Women's tendency to choose part-time employment is often due to their double shift of home and work responsibilities, which can be difficult to manage with a full-time job (Vincent, 2013). Some governments and firms have introduced policies to allow men and women have a better work-life balance but the literature on the effectiveness of these policies is mixed. The European Union, for instance, has taken steps to cap the work week at 48 hours in an effort to create better work-life balances for men and women. This nation-wide initiative has the potential to work better than firm-specific voluntary policies that allow employees to work less or take longer breaks, as these can disadvantage women if firms unconsciously put them on a "mommy-track." Alternatively, firms may reserve such policies for their best employees and create divisions within the female labour force (Evans, 2002). Greater flexibility in working hours or working at home can encourage more women to enter the workforce as they will be able to work around their schedules.

### A. Weeks Worked

Total weeks of employment are counted by the Census as all weeks in which paid or selfemployed work was performed or paid leave was taken (Statistics Canada, 2013). More detailed data on the number of weeks men and women worked, as well as earnings by weeks worked, are available throughout the censuses, and further investigation into this area would be beneficial for deeper analysis.



Figure 12. Source: Appendix -Weeks Worked

From 1980 to 2010 women went from working 2.9 less weeks a year on average than men, to 1.5 more. In 1980, men worked 36.4 weeks on average, and women worked 33.5. During the 1980s the number of weeks that men and women worked on average declined, though more for men than women, and in 1990 men worked 33.3 weeks on average and women worked 32. Over the 1990s average weeks worked began to rise for both sexes, with women surpassing men in weeks worked in 1995. This trend continued into the 2000s and by 2010 women were working 41.5 weeks per year on average, or 1.5 more than men.

### **B. Full-Year Full-Time Work**

The definition of men and women working full-year, full-time in the Census of Canada has changed over the past fifty years. In 1960 it was defined as those working 52 weeks a year (Statistics Canada, 1965f). In the 1971 Census of Canada the definition was expanded to those who worked 40 to 52 weeks and in 1981 it was reduced to those who worked 49 to 52 weeks (Statistics Canada, 1976c; Statistics Canada, 1984b). In the 2011 NHS the subcategories of number of weeks worked were removed, thereby ending the data on full-year full-time work, though data on whether weeks worked was mostly full-time or not, on the basis of all jobs held, remained(Statistics Canada, 2013). Full-time is defined as 30 hours or more a week for the entire period.





With a few exceptions, the percent of men and women who worked full-year full-time has been fairly similar for men and women from 1960 to 2005. In 1960 the percent was near equal, with 54.9% of men and 53.3% of women working full-year full-time. In 1970 the gap opened as 57.9% of men and 47.6% of women worked full-year full-time and potentially due to the restricted definition, by 1980 the percent of men and women working full-year full-time had declined to 42.3% of men and 34.3% of women. This negative trend continued into 1985 before picking up to 39.6% of men and 34.1% of women in 1990. From this point on the number of women working full-year full-time began to grow at a faster pace than the number of women and in 2005 43.2% of women worked full-year full-time, a full point higher than the percent of men.

### C. Full-Time Work

Since 1961 the Census of Canada has collected data on the number of weeks that men and women worked in the year before and whether those weeks were full-time or part-time (Statistics Canada, 1965f). This question was slightly changed in 1971 when a category was introduced based on whether one generally worked full-time over the year, defined as whether most of the number of weeks they reported working in 1980 were full weeks of work, or part-time, defined as whether they worked only part of the week (Statistics Canada, 1976c). Full-time work is defined as 30 hours or more per week for the entire time period.





From 1970 to 2010 there has been very little variation in the percent of men and women who worked mostly full-time, causing the difference between men and women's to remain at about 20%. In 1970 88.9% of men and 77.7% of women worked mostly full-time. In the following ten years the percent of women working full-time declined slightly to 72.9% in 1980, while men's stayed steady at 89.1%. The percent of men and women working full-time fell in 1985 but recovered again in 1990 before falling again to 89.5% of men and 75.2% of women in 1995. From 2000 onward the percent of men and women working mostly full-time steadily increased to 90.1% of men and 79.0% of women by 2010, almost exactly the same as 1970 levels.

### **D. Part-Time Work**

Data on whether one worked part-time over the year emerged at the same as data on fulltime and has had a parallel history in the Census of Canada. Part-time work is defined as working less than 30 hours a week.





A mirror image of the preceding discussion on full-time work, women in Newfoundland and Labrador are more likely to work part-time and that trend has changed very little from 1970 to 2010. In 1970 10.9% of men and 27.1% of women worked part-time in Newfoundland and Labrador. There was some volatility in this percentage over the 1980s but 1990 levels were very similar to 1970's. In 1995 the percent of men working part-time rose to 14.5% and stayed near 14% until 2010 when it fell to 9.9%. The percent of women working part-time followed a similar trend, rising to 29.5% in 1995 and gradually falling thereafter to 21.0% in 2010.

## XI. Occupation

In 1971 the Occupation Classification Manual (OCM) was introduced with twenty-one occupational divisions. This meant a complete break from the previous data and much more detail into the areas where people worked was provided. In this census greater attention was given to the caring sector, such as teaching and health, as well as the social and natural sciences. Several occupations were renamed with the intention of referring less to gender in the classification, and classifications in the primary resource extraction sectors were renamed to their 1951 titles (Statistics Canada, 1976a: 18).

In 1980 the Standard Occupational Classification (SOC) was introduced, which had the same number of and titles as the 1971 Census but with a more detailed structure and definitions of the various subgroups (Statistics Canada, 1984a).

In 1991 the SOC was condensed into ten major divisions to reflect changes in the labour force distribution and renamed the National Occupational Classification (NOC). This again meant a significant break from previous data though several categories remained (Statistics Canada, 2016c).

The following years, 1996 to 2006, each had their own slight variation of the National Occupational Classification for Statistics (NOC-S), which was very similar to the NOC and shares the same titles. The 2001 and 2006 are directly comparable but Occupation (historical) is recommended for comparison with 1991 and 1996 (Statistics Canada, 2016c).

The 2011 National Household Survey (NHS) had a similar ten major divisions as the NOC-S, but was recoded, and some occupations rearranged (Statistics Canada, 2013).

To better compare occupational incomes, occupations at the four-digit level were used starting from the 1971 OCM to the 2011 NHS. Due to data limitations, occupations were chosen with two simple criteria: (1) data was available for both men and women, and (2) occupation had the largest total number of people employed. For consistency historical data based on the 1971 OCM was used for 1971 to 1991, the 1991 NOC was used for 1991 to 2006, and the 2011 NHS was used for 2011.

Occupation income data provides information on how men and women's salaries compare within occupations. All income data is derived from the year of its respective census, except for

the 1991-NOC data which is derived from the 1996 Census. The income data has been adjusted to 2015 based on the inflation calculation as used by Statistics Canada according to the most recent Consumer Price Index (CPI), which uses 2002 as its base (Statistics Canada, 1996). The CPI provides an index of price changes over time, but not levels. However, the annual CPI for Newfoundland and Labrador only runs from 1979 to 2006, so data for 1970 will be adjusted using the Canadian CPI (Statistics Canada, n.d.). As discussed earlier, this may have overinflated incomes for 1970 but data for other years are consistent.

Data are also provided on the number and incomes of those who worked full-year, fulltime. In 1971 full-year, full-time was defined as those who worked 40 to 52 weeks and 30 hours or more a week for the entire period (Statistics Canada, 1976c). In the 1981 Census of Canada this definition was reduced to those who worked 49 to 52 weeks (Statistics Canada, 1984b). In the 2011 NHS the subcategories of number of weeks worked were removed, thereby ending the data on full-year full-time work (Statistics Canada, 2013).

Occupational wage structures are a key factor in the gender wage gap. Earnings between occupations can vary due to compensating differentials, immobility across sectors, and differences in qualifications required to perform the job. The elasticity of the supply schedule of each occupation also depends on labour market information and mobility, training requirements, immigration and the general state of the economy.

In the short run, we would expect interoccupational wage differentials to exist due to differences in non-pecuniary aspects of the job, short-run adjustments and non-competitive forces. However, over time, these differences should be minimized, as a demand increase in a particular occupation will increase wages, which will incentivize new workers to enter this occupation, and the increased supply of workers will work to push down wages. Still, human capital requirements and barriers to entry such as professional association regulations may continue to maintain variation. This ties well with Olivetti and Petrongolo's (2008) work, which seeks to explain the negative correlation between the gender wage and employment gaps across OECD countries. They suggest that gender wage gaps may be smaller in countries where fewer women are employed, because it is only high-skilled women who are entering the labour force, while low-skilled women are remaining outside of it.

Morissette, Picot and Lu (2013) found that differences in occupation accounted for 27.1% of the gender wage gap from 1981 to 1998, but that this had decreased to 18.0% from 1998 to

2011. The differences in industry were even starker, as they accounted for 26.3% of the wage gap in the first time period but -2.8% in the second, suggesting that women should be paid more than men given the industries they work in. Vincent (2013) similarly found that the educational and professional choices that women make were key variables in explaining the gender wage gap from 1986 to 2003. Gunderson and Reid (1983) considered what women's earnings would be in the 1970s if women had the same occupational distribution as men and found occupational segregation accounted for only 20% of the pay gap.

Occupations that are female-dominated often mimic traditional female gender roles such as child and elder care, cooking, cleaning, and ministering to the sick, and tend to pay less than those that are male-dominated. This trend has changed over the past 20 years, with women entering a larger range of occupations but concentration in those mimicking traditional women's roles remains (Vincent, 2013; Ostry, 1967; Fortin, 2002). Still, a key factor here is *choice*. Whether women prefer careers that mimic traditional gender roles or feel pushed into them is outside the scope of this paper, but deserves further investigation.

Women's occupational choices have also reflected changing economies. Women in the first part of the twentieth century seeking paid labour were likely to tend towards factories. With the growing importance of administrative jobs in the 1950s, many women began entering clerical occupations. These occupations paved the way for the modern career woman of the 90s, when women began entering a larger array of fields and making some progress in entering management positions (Costa, 2000). This changing composition is a key reason for the narrowing gender wage gap (Mulligan, 2008).

This paper considers nine occupations at the four-digit level to investigate whether men and women working the same job for the same amount of time are earning the same amount of income. Further investigation comparing female- and male-dominated sectors, and the incomes earned by each, would provide a better understanding of how occupational divisional affects the gender wage gap.

The Census also breaks occupations down by the size of the place where people live. A comparison of where women in rural and urban areas work would provide a better understanding of economic opportunities for women in Newfoundland and Labrador.

### A. Total Employed





The province's total working population has grown considerably in the past 60 years, from 106,411 in 1951 to 241,885 in 2006. While the number of men employed has risen by 36,921, or 41.3%, over this time period, much of this growth is due to the increase in the number of women participating in the paid labour force. In 1951, 17,027 women were working in Newfoundland and Labrador. By 2006 this had increased fivefold to 115,580, and in 2006 men and women were employed in the Newfoundland and Labrador labour market in roughly equal numbers.

## XII. Occupations with >70% Women

There are three occupations chosen where women represent more than 70% of the workforce: (1) Elementary and Kindergarten Teachers, (2) Nursing Assistants, and (3) Accounting Clerks.

One theory about why a large proportion of women are in careers such as health and education is because these sectors are relatively more tolerant of intermittent work patterns. By giving women flexibility to take maternity leave or work part-time, they are able to attract a larger proportion of women (Evans, 2002). Costa (2000) also argues that firms increased demand for jobs in the clerical sector forced them to create more flexible schedules for women, which accounted for the rise of women's part-time work in the 1950s and 1960s.

### A. Elementary and Kindergarten Teachers

The occupation '2731-Elementary and Kindergarten Teachers' was defined in the 1971 OCM as a subsection of Teaching and Related Occupations. In the 1991 NOC, the occupation, E132 – Elementary School and Kindergarten Teachers, was expanded to include 2351 – Librarians, Archivists and Conservators, 2739 - Elementary School Teaching and Related Occupations, n.e.c., and 2795 – Teachers of Exceptional Students, n.e.c (Statistics Canada, 2015a). In the 2011 NHS, this occupation was broken into 4032 – Elementary School and Kindergarten Teachers and 5211 – Library and Public Archive Technicians (Statistics Canada, 2015b). 4032 was chosen as it best reflected the 1970 definition of the occupation.





Since 1970 women have consistently been the majority of elementary and kindergarten teachers and the total number of people employed in this sector has stayed fairly steady over the past forty years. In 1970, women represented 78.7% of the occupation, with 3,580 women and 970 men working in this field. By 1985 the occupation had grown by 500, with men gaining more from this growth and 3,740 men and 1,280 men were employed in this field. Over the proceeding decades the total number of people employed as elementary and kindergarten teachers had moderate gains and drops, the most significant being a 20.2% fall from 5,175 in 1995 to 4,305 in 2000.Women felt the majority of these cuts, but proportionally, men and women were affected equally, and by 2010, the proportion of women in this field had increased to 81.4%.

Despite more women working in this field, men are more likely to work full-year full-time for every year except 2010. In 1970 the proportion of men and women was fairly low for both sexes, at 55.7% and 47.5% respectively. Over the next ten years the proportion of men and women working full-year full-time rose to 68.3% and 56.0%. The number of men working full-year full-time continued to increase thereafter, to 75.2% in 1990 and 80.8% in 2000, before falling to 60.6% in 2010. The percent of women working full-year full-time grew more slowly over this time period, reaching 61.3% in 1990 and peaking at 65.2% in 2000 before similarly falling to 62.7% in 2010.





In 1970, women earned \$22,670 on average, or 72.1% of men's earnings. Average earnings for men and women's increased thereafter and women's earnings averaged at \$44,000 in the 1980s and 1990s, and men's at \$59,000. Since 2000 women's average annual earnings have grown faster than men's, and by 2010 female elementary and kindergarten teachers earned \$58,028 on average, or 94.6% of men's earnings.

Despite women holding the majority of elementary and kindergarten teacher occupations, the gender wage gap for full-year full-time this occupation remains. In 1970 women working full-year full-time earned \$28,763 on average, or 76.8% of men's earnings. Incomes for men and women working full-time grew more than 50% to \$59,007 and \$51,069 respectively, thus closing the gender wage gap to 86.5%. Throughout the 1980s and 1990s women earned about 87% of men's earnings on average, and hit 90.5% in 2000. By 2010 women working full-year full-time were earning \$69,623, or 92.7% of men's earnings.

### **B.** Registered Nursing Assistants

Listed as a subset of Occupations in Medicine and Health in the 1971 OCM, 3134-Nursing Assistants has had some name changes over the past forty years but the occupation has remained largely the same. In the 1991 SOC, 3134 – Registered Nursing Assistants was broken into two occupations: D232 – Midwives and Practitioners of Natural Healing and D233 – Registered Nursing Assistants (Statistics Canada, 2015a). In the 2011 NHS, D233 – Registered Nursing Assistants was relabelled 3233 - Licensed Practical Nurses, and remained the same (Statistics Canada, 2015b).





The total number of people employed as nursing assistants has averaged at about 2,200 over the past forty years. Women have typically held 85% of these jobs and there are generally less than 400 men employed in this field in any given year. Data on the number of men working in this field was not available for 1980 or 1995. In 1970 70% of women were employed full-year full-time, compared to 88.1% of men. The percent of women working full-year full-time dropped to 46.3% in 1980 before rising to 61.8% in 1985 and dropping again to 56.8% in 1990. This percent gradually grew over the 1990s and 2000s, peaking at 74.1% in 2005 before dropping to 69.7% in



2010. Men are much more likely to work full-year full-time, with 75.8% doing so in 1985. This percent rose to 85.7% by 2000 and fell to 79.2% in 2010.



1980

1985

Men

1990

1990 -NOC

■ Women ● FYFT Men ● FYFT Women

1995

2000

2005

2010

1970

\$25,000

\$-

The gender wage gap between men and women working as nursing assistants has been fairly volatile over the past forty years. In 1970 women were earning \$17,069, or 63.4% of men's earnings. By 1985 women's earnings had grown to \$26,210, or 83% of men's, and those working full-year full-time were earning \$31,604, or 90.1% of men's earnings. The reclassification of the occupation in 1990 increased the gender wage gap, as under the previous definition women were earning 83.1% of men's earnings, and those working full-year full-time were earning 95.1% of men's earnings. Under the 1990 NOC, however, men's earnings rose near 20%, thereby raising the gender wage gap to 68.4% for total women and 80.5% for full-year full-time women. By 2000 women's earnings had outpaced men's and the gender wage gap for total and full-year full-time women was 81.2% and 86.4%, respectively. By 2010, however, men's earnings and those working full-year full-time work from 2005, and in this year women earned 76.0% of men's earnings and those working full-year full-time full-time earning 75.1% of men's earnings.

### **C. Accounting Clerks**

'4131-Bookkeepers and Accounting Clerks' was listed as a subset of Clerical and Related Occupations in the 1971 OCM. In the 1991 SOC, 4131 was divided into seven categories: B111 – Bookkeepers, B513 – Records and File Clerks, B531 – Accounting and Related Clerks, B532 – Payroll Clerks, B534 – Banking, Insurance and Other Financial Clerks, B552 – Correspondence, Publication and Related Clerks, and B575 – Dispatchers and Radio Operators (Statistics Canada, 2015a). B531 – Accounting and Related Clerks was chosen because it was the only occupation at the four-digit level with data on both men and women. In the 2011 NHS, B531 was relabelled 1431 with no change (Statistics Canada, 2015b).





The total number of people employed as bookkeeping and accounting clerks rose 111.3% from 2,800 in 1970 to 5,915 in 1980, and another 20.5% to 7,125 in 1985 where it peaked. The reclassification of the occupation in 1990 resulted in a 37.5% decline and the total number of people employed as accounting clerks has gradually declined ever since, with just 1,975 people employed in 2010. In 1970 men and women were employed in fairly equal numbers, with men comprising of 55.6% of the total employed. By 1980 this had dramatically changed, with the number of women employed growing by 236.2% to 4,270, or 72.2% of the total. With the

reclassification of the occupation in 1990, women remained the majority at 75.6% of all accounting clerks. As the number of people employed in the occupation declined in the 1990s and 2000s, women's majority increased and by 2010 women represented 87.8% of the profession.

While women have been the majority of accounting clerks, men have tended to be more likely to work full-year full-time with a few exceptions. In 1970 a relatively high percent of men and women worked full-year full-time at 77.8% and 61.0% respectively. In 1980 this had fallen to 64.1% of men and 44.3% of women. These proportions remained fairly similar until the reclassification of the occupation when the proportion of women working full-year full-time increased to 52.7% in 1990. The percent of men working full-year full-time, however, began to decline from 61.7% in 1990 to 48.3% in 2000, 17 percentage points less than the 65.7% of women in that year. The proportion of men working full-year full-time rose thereafter, while the proportion of women fell, and in 2010 72.9% of male and 52.7% of female accounting clerks were working full-year full-time.





While annual earnings for total employed were comparatively low in 1970 for men and women, they rose significantly by 1980 and for men hovered around \$60,000 from 1980 to 2010, while women saw more growth, from \$42,069 in 1980 to \$58,028 in 2010. This hints at a narrowing gender wage gap, which was 72.1% in 1970 and had fallen to women earning 94.6% of

men's earnings by 2010. The gender wage gap has been much smaller for men and women working full-year full-time, starting at 86.5% in 1980, peaking at 93.5% in 2005 before falling slightly to 92.1% in 2010.

### XIII. Occupations with >70% Men

There are three occupations chosen where men represent more than 70% of the workforce: (1) Net, Trap and Line Fishing Occupations, (2) Public Works and Maintenance Labourers, and (3) University Professors.

In the 1971 OCM there were more occupations that were male-dominated than femaledominated. These occupations were generally higher paid, and many of them were fairly risky. Careers in sectors that are inherently dangerous, such as mining or welding, compensate their workers for the increased safety risks by paying them higher wages. Higher wages also compensate for undesirable working conditions such as strict hours and unpleasant working conditions. The rise in wages of those with lower education can be tied to increasing participation in riskier careers, which tend to be male-dominated.

Some economists argue women are self-selecting themselves out of these occupations, and prefer clean, safe settings. Attempts to derive preferences, however, are where economics returns into its philosophical roots and Bentham's incalculable utility curve. While Bentham would suggest that women are simply operating on their utility curves, trading wages for safety and cleanliness, feminist theory suggests women's preferences have been instilled on them, rather than self-realized. The stories of harassment and pushback against women entering male-dominated occupations also rings of social closure theory, as men represent a group with vested interests to reduce such competition.

### A. Net, Trap and Line Fishing Occupations

In the 1971 OCM 7313 – Net, Trap and Fishing Occupations was included as a subcategory of Fishing, Trapping and Related Occupations. In the 1990 SOC, 7313 was divided into three categories: I172 - Fishing Vessel Skippers and Fishermen/women, I181 – Fishing Vessel Deckhands, and I213 – Aquaculture and Marine Harvest Labourers. I172 - Fishing Vessel Skippers and Fishermen/women was chosen because it had the highest number of men and women working in this field. This occupation also includes 7311 – Captains and Other Officers, Fishing Vessels. In the 2011 NHS, I172 was relabelled 8262 – Fishermen/women with no change.





At its peak in 1980, 13,270 people were employed as fisherpersons in Newfoundland and Labrador. This number has gradually declined ever since and in 2010 just 6,645 people were employed as fisherpersons. While the number of men employed in this field has fallen year over year since 1980, the number of women has gradually increased, from 60 in 1970 to 1,015 in 1990 to a peak of 2,100 in 2005 before falling to 1,465 in 2010.

Very few men or women have been employed full-year full-time in this field, which can be expected given the seasonal nature of this work. In 1970 there were 1,400 men employed full-year full-time, the highest recorded. In 1980 this fell to 420, and rose to 440 in 1990 before consistently declining year-over-year, with just 190 men working full-year full-time in 2010. The number of women employed full-year full-time stayed below 20 for the entire time period and no data on women working full-year full-time was available for 2005 and 2010.





Those working as fisherpersons have earned relatively low incomes, with men's earnings averaging at about \$20,000 a year, and women's at \$10,000 a year, with 1995 and 2000 being exceptions. In 1970 men and women's earnings were fairly close, with women earning \$10,015, or 82.4% of men's earnings. In 1980 men's earnings rose comparatively to women's and the gender wage gap rose to 44.7%. Women consistently earned 50% of men's earnings from 1980 to 2000 until men's earnings declined from \$31,074 in 1995 to \$17,106 in 2005. Women's earnings also fell over this time period, but by a smaller percentage, thereby decreasing the gender wage gap to 67.0%. Incomes for men and women rose slightly in 2010 and the gender wage gap was 67.9% for that year.

The gender wage gap for men and women working full-year full-time is very volatile from 1980 and 2010, likely due to the very low number of men and women who did so. In 1980 men working full-year full-time earned \$38,735, and women earned \$16,885, or 43.5% of men's earnings. Over the next ten years, men's earnings stayed fairly steady, while women's fell to 25.8% of men's earnings in 1990. By 1995 men working full-year full-time were earning \$52,908, while women earned just \$9,099, or 17.2% of men's earnings. In 2000, women's earnings rose to

\$34,448, or 69.9% of men's earnings. Men's earnings stayed fairly steady at about \$50,000 a year until 2010 when they fell to \$34,970.

#### **B.** Public Works and Maintenance Labourers

In the 1971 OCM, 9918 – Occupations in Labouring and Other Elemental Work, n.e.c., was listed as a subcategory of Occupations Not Elsewhere Classified and included occupations in the following six industries: (1) Manufacturing, (2) Transportation, Communication and Other Utilities, (3) Trade, (4)Community, Business and Personal Service, (5) Public Administration and Defence, (6) Other Industries and Unspecified. In the 1991 SOC, 9918 was broken into 6 occupations: G932 – Specialized Cleaners, H821 – Construction Trades Helpers and Labourers, H822 – Other Trades Helpers and Labourers, H831 – Public Works and Maintenance Labourers, H832 – Railway and Motor Transport Labourers, and J319 – Other Labourers in Processing, Manufacturing and Utilities. H831 – Public Works and Maintenance Labourers was chosen because it had the highest number of men and women working in this field. This occupation also includes 8791 – Pipefitting, Plumbing and Related Occupations, 8799 – Other Construction Trades Occupations, n.e.c., 9318 – Occupations in Labouring and Other Elemental Work: Materials Handling and Related Occupations, n.e.c., 9539 - Stationary Engine and Utilities Equipment Operating and Related Occupations, n.e.c., and 9918 – Occupations in Labouring and Other Elemental Work, n.e.c. In the 2011 NHS, H831 was relabelled 7621 - Public Works and Maintenance Labourers with no change.





The total number of people employed in occupations in labouring and other elemental work rose 471.0% from 1,260 in 1970 to 7,195 in 1985 before dropping slightly to 6,990 in 1990. The reclassification of the occupation in 1990 just about halved the total number of people employed to 3,335, and the number gradually declined afterward, with just 1,360 employed in 2010. While just 55 women were employed in this occupation in 1970, or 4.4% of the total, the number of women grew to 455 by 1980 and peaked at 1,735 in 1985, or 24.1% of the total. With the reclassification of the occupation in 1990, the percent of women employed stayed fairly consistent at 21.1% of the total, dropped to 15.1% in 1995 and rose to 28.6% in 2000 before gradually falling to 21.3% in 2010.

The number of women employed full-year full-time peaked at 40 in 1990, before dropping to 10 in 1995 and no data collected on full-year full-time women was available thereafter. The number of men employed full-year full-time has also been fairly low, staying close to 10% from 1980 to 1990. With the reclassification of the occupation the percent of men employed full-year full-time grew to 21.1%, peaked at 28.6% in 2000 and fell to 21.3% by 2010.





The average annual earnings of men and women employed from 1970 to 1990 are fairly low, averaging at \$15,000 for men and \$7,000 for women. With the reclassification of the occupation in 1990, men's average annual earnings increased year-over-year, from \$18,422 in 1990 to \$27,626 in 2010. Women's average annual earnings, however, stayed low, thus increasing the gender wage gap, as women earned \$6,345 in 1990, or 34.5% of men's earnings, and \$6,419 in 2010, or 23.2% of men's earnings.

The annual earnings of men and women working full-year full-time were much higher, averaging at \$40,000 for men and \$30,000 for women. In 1980 women working full-year full-time were earning 73.1% of men's earnings, and with the reclassification of the occupation in 1990, the gender wage gap had declined to 96.1%. Unfortunately, this was the last year data was available for women working full-year full-time. Men's earnings stayed fairly steady from 1990 to 2010, averaging at \$42,500.

### **C. University Professors**

In the 1971 OCM, 2711 – University Professors was listed as a subcategory of Teaching and Related Occupations. In the 1991 SOC, 2711 was relabelled E111 - University Professors. E111 also includes 1133 – Administrators in Teaching and Related Fields. In the 2011 NHS, E111 was relabelled 4011 - University Professor and Lecturers, except postdoctoral fellows.





The total number people employed as university professors increased from 405 in 1970 to 925 in 1990. With the reclassification of the occupation in 1990 to include administrators in teaching and related fields, the occupation increased from 925 to 1,665. The total number of people employed gradually decreased thereafter, falling to 1,095 in 2000 and rising to 1,545 in 2010. In 1970 there were 85 women employed in this field, or 20.1% of the total employed. In 1980 there were zero women recorded as working in this field, but in 1985 there were 730, or 37.7% of the total. When the occupation was reclassified in 1990 the number of women employed jumped from 280 to 585. The number of women employed as university professors gradually increased thereafter, before falling to 315 in 2000 and then rose again to 480 in 2010. Therefore, while women remained the minority in the other male-dominated occupations discussed, women represented 42.1% of all university professors in Newfoundland and Labrador by 2010.

In 1970 265 men (82.8%) and 65 women (76.5%) were employed full-year full-time. By 1985 the number of women working as full-year full-time university professors had risen to 150,

but this was just 54.5% of the total while the percent of men stayed steady at 82.4%. In the reclassified 1990-NOC, the percent of full-year full-time university professors had fallen to 59.7% of men and 40.2% of women. The percent of men and women working full-year full-time gradually rose thereafter and by 2010 were nearly equal, with 78.2% of men and 73.8% of women doing so.





Annual earnings of male university professors have typically been higher than the average for all occupations, with men earning about \$80,000 a year. In 1970 women were earned \$50,135, or 65.1% of men's earnings. Women consistently earned about 65% of men's earnings until 2000, when women's annual earnings rose to \$63,042, or 76.5% of men's earnings. In 2010 men's average annual earnings rose to \$91,950, and women's to \$87,961, or 95.7% of men's earnings.

In 1985 women working full-year full-time earned \$64,384, or 79.7% of men's earnings. While the gender wage gap decreased slightly in 1990, the addition of occupations in administration in that year decreased the average annual earnings of men and women, but had a larger negative effect on women and the gender wage gap fell to 75.6%. Women's annual earnings outpaced that of men's thereafter, and by 2010 there was near perfect gender equality in men and women's full-year full-time earnings, with men earning \$103,258 and women earned \$103,022, or 99.8% of men's.

# XIV. Occupations with ~50% Men and Women

There are three occupations chosen with roughly equal numbers of men and women: (1) Fish Plant Workers, (2) Retail Salespersons, and (3) Janitors, Caretakers and Building Superintendents.

### A. Fish Plant Workers

In the 1971 OCM, 8271 – Fish Canning, Curing and Packing Occupations was listed as a subcategory of Processing Occupations. In the1990 SOC, 8217 was divided into three categories: G941 – Butchers and Meat Cutters, Retail and Wholesale, J173 – Fish Plant Workers, and J318 – Labourers in Fish Processing. J173 – Fish Plant Workers was chosen because of the social significance of the fish plant to Newfoundland culture. This occupation also included 8228 – Occupations in Labouring and Other Elemental Work: Food, Beverage and Related Processing. In the 2011 NHS, J173 was relabelled 9463 - Fish and Seafood Plant Workers.





Jumping from 5,300 in 1970 to a maximum of 15,180 people employed as fish plant workers in 1980, the total number of people employed in this occupation stayed fairly steady until 1995 when it was significantly negatively affected by the cod moratorium and employment fell 69.6% from 13,550 in 1990-NOC to 4,115 in 1995. The total number of people employed in the occupation stayed fairly steady thereafter, with 4,135 people employed in 2010.

While men represented 66.8% of the occupation in 1970, women entered this field in large numbers in the 1980s, with the number of women rising 413.4% from 1,760 in 1970 to 9,035 in 1980, or 59.5% of the total. The number of men and women employed in the field fell in fairly equal numbers over the 1980s, and women represented 61.6% of the total employed in 1990. With the reclassification of the occupation in 1990, the number of men employed rose from 5,085 to 6,230, while the number of women employed fell from 8,155 to 7,320. The decline of the industry affected both men and women fairly equally, though women remained a majority of the total until 2010, when women were 45.0% of the total employed.

Given the seasonal nature of the fishing industry, there were very few men or women employed full-year full-time. In 1980 and 1985 about 6% of men and 2% of women were employed full-year full-time, and in the 1990s this decreased to about 2% of men and 1% of



women. From 2000 to 2010 there were no women recorded as working full-year full-time, and less than 40 men did.

#### **Figure 30. Source: Appendix – Occupation.**

From 1970 to 2010 the average earnings of men and women working as fish plant workers has been fairly low, at less than \$20,000 a year. In 1970 women earned just \$6,423 a year, or 53.3% of men's earnings. Women's earnings did rise compared to men's thereafter, peaking at \$10,594 in 1990-NOC, or 69.1% of men's earnings. While men and women's earnings declined thereafter, the gender wage gap decreased and in 2010 women were earning \$9,737 a year, or 72.4% of men's average annual earnings.

Those working full-year full-time made considerably more than those who did not, but the numbers were few. In 1980 women working full-year full-time earned \$23,336, or 81.3% of men's earnings. This year had the smallest wage gap, as men's earnings considerably outpaced women's thereafter and by 1995 men were earning \$55,145, while women earned just 37.5% of that at \$20,668 a year. This was the last year that the earnings of full-year full-time women were recorded.

#### **B.** Retail Salespersons

In the 1971 OCM, 5135 – Sales Clerks and Salespersons, Commodities, n.e.c was listed as a subcategory of Sales Occupations. In the 1990 SOC, 5135 was divided into three categories: G111 – Sales Representatives, Wholesale Trade (Non-Technical), G211 – Retail Salespersons and Sales Clerks., and G972 – Grocery Clerks and Shelf Stockers. G211 was chosen because it had the highest number of men and women employed. This occupation also included 3313 – Product and Interior Designs, 5149 – Sales Occupations, Commodities, n.e.c, 5179 – Sales Occupations: Services, n.e.c., 5199 – Other Sales Occupations, n.e.c., and 6169 – Apparel and Furnishing Service Occupations, n.e.c. In the 2011 NHS, G211 was subdivided into 5242 – Interior Designs and Interior Decorators and 6421 – Retail salespersons. 6421 was chosen because it most closely resembled G211.





While this occupation employed just 970 people in 1970, it quickly grew to 11,680 in 1980 and 13,115 in 1990. With the reclassification of the occupation in 1990 the total number of people employed did decline slightly, and hovered at about 10,000 thereafter. In 1970 women represented just 13.4% of the total employed, but by 1980 the number of women employed had risen from 135 to 7,495, or 64.2% of the total. After the reclassification of the occupation in 1990, the number of

men employed as retail salespersons averaged at about 3,200 while the number of women averaged at about 6,800.

While just 55 women and 655 men were employed full-year full-time in 1970, this number rose to 2,600 and 2,250 respectively in 1980 and the absolute numbers stayed fairly similar up until 2010. As women were employed in this field in larger numbers, however, the proportion of men employed full-year full-time was higher. In 1980 62.1% of men and 30.0% of women were employed full-year full-time. Despite more people being employed, this gradually decreased to 49.3% of men and 27.4% of women in1990. The reclassification of the occupation changed these percentages very little and they remained fairly consistent for the next 20 years, and in 2010 47.1% of men and 30.4% of women of all retail salespersons were employed full-year full-time.





The average annual earnings of men and women working as retail salespersons has stayed fairly consistent from 1970 to 2010, with men earning about \$27,000 a year and women earning about \$12,000 a year. In 1970 the gender wage gap was at its greatest, with women earning 30.5% of men's earnings, but as men's earnings gradually declined, so did the gender wage gap, and women typically earned about 50% of men's earnings thereafter.

The gender wage gap was slightly smaller for women working full-year full-time but followed a similar pattern of being greatest in 1970 when women earned 38.5% of men's annual earnings. From 1980 to 2010 women's earnings stayed fairly steady, averaging at \$21,500 from 1980 to 2005 before rising to \$28,615 in 2010. Men's earnings followed a similar pattern, averaging at \$38,400 from 1980 to 2005 before rising to \$50,156 in 2010. This created a fairly consistent gender wage gap over the time period, with women earning 54.3% of men's earnings in 1980 and 57.1% of men's earnings in 2010.

### C. Janitors, Caretakers and Building Superintendents

In the 1971 OCM, 6191 - Janitors, Charworkers and Cleaners was listed as a subcategory of Service Occupations. In the 1990 SOC, 6191 was divided into four categories: G931 – Light Duty Cleaners, G932 – Specialized Cleaners, G933 – Janitors, Caretakers and Building Superintendents, and J317 – Labourers in Food, Beverage and Tobacco Processing. G933 was chosen because it had the highest number of men and women employed and closely resembled 6191. G933 also included 6139 – Occupations in Lodging and Other Accommodation n.e.c., 6199 – Other Service Occupations, n.e.c., 8799 – Other Construction Trades Occupations, n.e.c., and 9919 – Other Occupations, n.e.c. In the 2011 NHS, G9311 was relabelled 6733 - Janitors, Caretakers and Building Superintendents.





The total number of people employed as janitors, caretakers and building superintendents has stayed fairly steady from 1970 to 2010, with 3,430 people employed in 1970, peaking at 5,270 in 1990 and falling gradually thereafter, with 3,800 people employed in 2010. In 1970, 1,025 women were employed in this field, or 29.9% of the total. By 1980 this had doubled to 2,465, or 50.8% of the total employed. When the occupation was reclassified in 1990, the number of women employed in this field fell from 2,895 to 1,420, while the number of men employed increased from 2,375 to 3,105. The percent of women employed in this field averaged at about 30% thereafter, and in 2010 1,225 women were employed as janitors, cleaners and building superintendents, compared to 2,575 men.

Despite the volatility of the total number of men and women employed, the proportion employed full-year full-time stayed fairly consistent for both sexes over the time period. In 1980, 49.0% of men and 22.1% of women were employed full-year full-time, and by 2010 this had changed only marginally, with 50.7% of men and 29.0% of women employed full-year full-time.





In 1970 the gender wage gap in this field was at its highest, with women earning \$7,639 a year, or 35.2% of men's earnings. Women's earnings rose to \$13,942, or 60.7% of men's earnings, in 1980 and grew only marginally thereafter, to \$15,940, or 64.0% of men's earnings, in 2005, before rising to \$20,589, or 66.9% of men's earnings, in 2010. Men's annual earnings averaged at \$23,000 from 1970 to 2005 before rising to \$30,807 in 2010.

The gender wage gap for those working full-year full-time was largest in 1970, but smallest in 1980 and gradually grew afterwards. In 1970 women earned \$13,077, or 48.7% of men's annual earnings. By 1980 this had doubled to \$25,662, or 82.7% of men's earnings. Women consistently made about 82% of men's earnings until the occupation was reclassified in 1990 and the rise in men's earnings increased the gender wage gap, with women earning 77.9% of men's earnings. As women's full-year full-time earnings stayed fairly steady from 1990 to 2010, men's earnings rose comparatively, and by 2010 women were earning \$31,317, or 73.4% of men's earnings.

### XV. Education

Since 1961 the Census of Canada has collected information on the population's educational attainment, which refers to the highest grade of elementary, secondary, or post-secondary attended or completed. As Canada's population has grown more educated, the Canadian Census data has become more detailed. In 1961, there were four broad categories: (1) elementary; (2) secondary; (3) some university; (4) university degree. Elementary and secondary education were given several subsections by grade, though highest level attended did not necessarily completed (Statistics Canada, 1999). In 1976 more detail was given to higher education, but trades certificates or diplomas, and university certificates or diplomas above a bachelor's degree were not included until 1981 (Statistics Canada, 1984c). In 1986 there was slightly more detail given to education subsections and these remained until 2006 when the Census began considering completed certificates, diplomas and degrees only (Statistics Canada, 2009c). This removed the 'Elementary' category and all subsections of uncompleted certificates, diplomas or degrees. All data refers to the portion of the population 15 years and older, except for 1961, when data on the level of schooling was only provided as a subset of the labour force.

To better understand the educational attainment of the working age population, defined here as those aged 25 to 64, this category is considered as well. In 1971 the subsections of educational attainment by age groups given were 15 to 24, 25 to 44, and 45 and over, so this year was excluded from the data.

The human capital theory of wages is often used in the literature to understand the gender wage gap. The theory expounds that investments in human resources such as education and job training improve an individual's worker productivity and therefore their earnings potential over their lifetime. Given the high direct and indirect costs of gaining an education, the higher earnings received by those with a higher education compensates individuals for their investments. The human capital investment decisions of workers are based on their expectations of their lifetime earnings and career opportunities, as well as their ability to finance investments in their education.

Going back to the 1970s, women in Canada have earned greater educational attainment than men, and such attainment has grown significantly since (David, 1977; OECD, 2016). In 2011, women accounted for over half of university degree holders aged 25 to 64. The growth is
especially apparent when age groups are compared, as young women aged 25 to 34 are nearly twice as likely to hold a doctorate degree as women aged 55 to 64 (Ferguson, 2015).

Mulligan and Rubinstein (2008) suggest that growing inequality within gender is due to women with more human capital entering the workforce, while those with less education are dropping out. Given the higher returns to education, those women who are able to pursue postsecondary education are likely to acquire several degrees, thereby increasing the opportunity cost of not working. They found the changing composition of the female work force including selection into the labour force, labour force attachment, and human capital investment were key factors in women's wage growth.

In *Human Capital* (1993), Becker differentiates between general and specific training. While an individual may acquire general training that prepares them for an occupation in any firm, a firm may want that employer to have specific training to increase their productivity. Given that this is firm-specific training, the costs must be incurred by the firm, and works to increase the value of the marginal productivity of the worker, though the worker may receive the same wages during and after training. This on-the-job training benefits workers as it may increase their opportunity for advancement within the firm.

Human capital investment decisions by a firm are based on the premise that over time the firm will reap the costs of such investment through higher productivity. Such human capital investments, therefore, often lead to promotional opportunities, as employees are better trained in a specialized area. If firms believe that women are more likely to leave the firm for personal reasons, they will be less likely to invest in female employees, thus negating opportunities for women to climb the corporate ladder .This was studied by Munasinghe et al (2008), who found that men were more likely to receive more company provided training than women in the firm.

If firms assume that all women are less attached to the labour market, this may result in employer discrimination based on rational expectations that women will leave the firm. In their examination of returns to tenure, Munasinghe et al. (2008) found that this return was substantially higher for men than for women, that the return on an additional year of labour market experience was lower for women, and that the overall return on experience was higher for women. This last finding suggests that while women may have less job tenure, they are able to 'catch up' to their continuously employed counterparts quickly.

### A. No Degree

'No Degree' is defined as those with less than a high school education and was introduced into the Census of Canada in 1976. For previous years the definition is restricted based on the data provided. 1961 data were taken from the 1986 historical data, which divides education by less than Grade 9 and Grades 9 to 13 (Statistics Canada, 1989b), and therefore 'no degree' refers to those with less than a Grade 9 education. In 1971 the educational attainment divisions provided were those with less than Grade 5, Grade 5-8, Grade 9-10, Grade 11, Grade 12, and Grade 13 (Statistics Canada, 1976d). Given that the public school system ended in Grade 11 in that year, 'no degree' refers to those with less than a Grade 11 education.





Newfoundland and Labrador's population has gained higher educational attainment since 1961 as shown in the declining number of people with no high school degree. In 1961 58.8 % of the male population and 51.1% of the female population had less than a Grade 9 education. As the population increased into 1971 and the definition of no degree included those who had attended high school but did not graduate, the total number and proportion of men and women with no degree rose to 72.3% of men and 70.9% of women 15 years and older. This percentage gradually decreased thereafter, and by 1991 49.1% of the male population and 49.3% of the female population had less than a high school diploma. The total number of men and women with less

than a high school degree declined by about half from 1991 to 2011, and in 2011 28.3% of the male population and 27.7% of the female population had no degree.

In 1976 the proportion of the working age population aged 25 to 64 with no degree was very similar to that of the total population, with 66.0% of men and 70.1% of women aged 25 to 64 falling within this category. Over time, however, this population has become more educated than the population as a whole, and in 2011, just 21.3% of men and 19.4% of women aged 25 to 64 had no degree.

#### **B. High School Education**

A high school education is defined as those with a high school diploma. This category was not explicitly added until 1976, and data from previous years includes an expanded definition of the term. Given that the Newfoundland and Labrador school system stopped at grade 11 until the 1983-84 academic year, for 1961 those with a Grade 9 to 13 education were considered as having a high school degree, and for 1971 those with a Grade 11, 12 and 13 education were counted as having a high school degree (Norris, 1983). In 1976, data was provided on those with a secondary school graduate certificate (Statistics Canada, 1978b). This subdivision remained until 2006 when it was expanded to those with a high school certificate or equivalent (Statistics Canada, 2009b).





Given the expanded definition of those with a high school diploma for 1961 and 1971, it is consistent that the total number of men and women with a high school diploma for these years would be higher than in 1976. In 1976 the number of men and women with a high school diploma was fairly equal, with 13,230 men and 13,190 women holding one. As the number of men and women with a high school diploma gradually rose throughout the 1980s and 1990s, the number of women with a diploma gradually outpaced that of the number of men and in 1996 16.6% of the male population and 18.0% of the female population held a high school diploma. In 2001 there was a sharp decline in the number of men and women with a high school diploma of skills. In 2006 the number of men and women with a high school diploma rose again, possibly due to the reclassification of the division as those with a high school diploma had been fairly equal from 1976 to 2001, in 2006 women were 60.2% of this population. In 2011, 22.0% of the male and 24.4% of the female population had a high school degree or equivalent.

### C. Trades Certificate or Diploma

While it was first included as part of 'post-secondary non-university only' education in 1976, a trades certificate or diploma was not introduced until 1981 and has been in every Census thereafter (Statistics Canada, 1984c). The College of the North Atlantic is the province's only public college, with scattered schools across the province, and there are several private colleges as well.





From 1981 to 1991 very few men or women held a trades degree, but this dramatically increased in 1996, potentially due to the mass upgrading of skills that occurred after the cod moratorium. In 1981 5,895 men and 2,460 women had trades degrees and women were 29.4% of all trades certificate or diploma holders. The number of men and women with such degrees stayed fairly steady to 1991 and took a large 561.3% leap in 1996. The reason for such a jump is unclear as every year considers highest level of schooling as a function of the population that is 15 years and older, the sample sizes are the same for all years, and no change of definition was noted in the 1996 Census Dictionary. The spike may be due to the large lay-off of fish processers and fishers, as those negatively affected by the cod moratorium returned to school to change their skill sets, and the increase was consistent with those who were 25 to 64 years old. In 1996 women were 42.9% of degree holders with 29,600 women and 39,435 men holding one, and total numbers grew only marginally in 2001. In 2006 there was a drop in the number of men and women with trades certificates or diplomas, suggesting some outmigration, and the total number of men and women

with a trades certificate or diploma stayed fairly steady into 2011, though the proportion of men aged 25 to 64 with a degree declined relative to the total.

### **D.** University Degree

'University Degree' is defined as those with a completed university degree at the bachelor level or higher. The Census also records information on those with 'some post-secondary' or 'university, without a university degree,' but given the changing definitions of these categories they were not considered in this study.

Newfoundland and Labrador is home to one university, Memorial University, which is the largest and most comprehensive university in Atlantic Canada. While the St. John's campus is the main focus of the university, the Marine Institute and Grenfell campus are also key aspects of Memorial.

Memorial University has the lowest tuition in Canada, which stems from a long history of government incentives to encourage people to attend university. In 1965 Premier Smallwood announced free tuition for all first-year students who were from the province. This was later expanded to include all students from Newfoundland and a living salary ranging from \$50 to \$100 a month. In his 1965 Budget Speech, Premier Smallwood explained that the decision to lower tuition was to increase the incomes of the province's citizens, so that the province would "be more than merely a poor relative to the rest of Canada" (Smallwood, 1965).





Given the introduction of low cost education at Memorial University in the 1960s and increasing labour demand for those with higher education, the total number of people with a university education in Newfoundland and Labrador has increased from humble beginnings of 2,218 in 1961 to 57,205 in 2011. In 1961 men were three times as likely to have a university education as women with 1,696 men and 522 women having a university degree. The following decades saw a steady increase in university education attainment by men and women, with men holding the lead until the 1990s when a roughly equal number of men and women held university degrees. By 1996 the number of women with university degrees had grown to 22,490, and women were 52% of degree holders. A slight decline in the total number of people with university degrees in 2001 suggests outmigration of some of the province's top talent, likely pushed out from the high unemployment of the 1990s. By 2006, however, there was another spike in university degree holders with women making up the majority, though less so for those aged 25 to 64, and this trend continued into 2011 when 25,155 men and 32,050 women had a university degree.

# XVI. Other Factors

The preceding pages consider a variety of factors that affect men and women's earnings in Newfoundland and Labrador and the data that affects them. These are, of course, not all the factors that affect earnings and several other factors are discussed below.

### A. Monopsony

Imperfect monopsonistic wage differentiation suggests that the firm, as sole employer of labour, is able to differentiate between broad groups of workers and offer them different wages. For the monopsonist to discriminate, the labour market must be segmented into groups such that there is no competition between groups and that each group has a different labour supply elasticity. Women's lower labour supply elasticity is rooted in many factors such as fewer employment opportunities, being tied to the community of their husband's employment, household responsibilities, and household and institutional discrimination, which can disrupt their careers or prevent them from pursuing careers that are typically male-dominated and better paid. Given these factors, a woman's reservation wage may be lower than a man's, thus giving the monopsonist the ability to pay women less. However, monopsony is specific to particular labour markets. The limited career options of women in rural Newfoundland and Labrador may work to explain the persistence of the gender wage across occupations. Monopsony is especially prevalent in the scattered fish plants across the province that offer lower wages for women, as shown in the discussion of fish plant workers above. These fish plants are often the largest employer in their region and offer poor working conditions, but as women's career options in these areas are limited, firms are able to ignore their complaints and deter efforts to unionize (Women's Unemployment Study Group, 1983).

Further investigation into earnings and labour force activity of rural and urban areas would be of interest in better understanding how economic opportunities affect the gender wage gap.

#### **B.** Class of Worker

The Canadian Census divides workers into two categories: (1) employed and (2) selfemployed. Men and women who are self-employed typically earn more than other classes of workers, yet women are less likely to be entrepreneurs than men (David, 1977). Further investigation into the absolute numbers and earnings of employees compared to self-employed may provide further insight into the gender wage gap.

#### **C. Labour Market Discrimination**

In their empirical analyses economists consider variations of the listed theories to explain the gender wage gap, but when controlling for these factors, unexplained variation remains. Economists have had to contend that some form of labour market discrimination remains that is working to push down women's wages. In their breakdown of factors affecting the gender wage gap, Morissette, Picot and Lu (2013) found that the unexplained variation of the gender wage gap from 1981 to 1998 was -25.4%, suggesting that the gap should be greater than it was. However, as women's individual worker productivity increased in terms of educational attainment, union status, occupation and job tenure, the unexplained portion spiked to 61.6%, suggesting women should be earning more than they were. The persistence of the gender wage gap, despite these changes in productivity, suggests that there may be discrimination in the labour market. This discrimination can appear in several forms that are discussed below.

#### **Demand theories of discrimination**

Demand theories of discrimination contend that employers may be biased in their hiring and promotion decisions. If employers believe, for instance, that women are less productive or have lower attachment to the labour market than men, they will offer women lower wages. This was an obvious deterrent to women's career opportunities in the 1950s and 1960s, when women were expected to leave the labour force once they were married, so firms were unwilling to promote them. Since then, however, there has been a dramatic increase in women's participation in the labour force, which from the demand side may be due to the rise of the administrative and sales sectors, improved technologies that allow firms to substitute women for men, or the increased educational attainment of women, which has reduced the emphasis of on-the-job training. Given that most of the growth from 1950 to 1970s was in part-time work, this suggests that firms demand for female labour pushed them to create schedules that worked around women's schedules, which was especially important for getting married women into the labour market (Costa, 2000).

Unfortunately such demand side theories are harder to prove through econometric methods and little attention has been paid to them in the economic literature.

### Supply theories of discrimination

The significant rise in women's participation rates in the latter half of the 20th century highlights the supply side of women's increased involvement in the labour market. With the advancement of technologies in homecare, such as the washing machine, and the decreasing fertility rate of women, more women had the free time necessary to enter the formal labour force.

In determining whether demand or supply side factors were more important to married women's participation in the labour force, Costa considers women's uncompensated income elasticities throughout the 20th century. For the first part of the century, women's income elasticities were negative and much greater than one, suggesting changes in participation were largely due to supply side changes. With increased technological substitutes for traditional women's work and more women seeking higher education, the income effect declined and women's increased participation was largely due to demand side changes from 1940 to 1960. Wage and income elasticities continued to decline, though not to zero, and Costa finds demand and supply side changes improved women's participation rates between 1960 and 1980 as divorce rates increased and women found more status and meaning in their career paths. After the 1980s, however, Costa (2000) expects little change in women's participation rates, as the relatively small size of married women's wage and income elasticities suggests those that have stayed out of the labour force may remain there unless tastes change.

The crowding hypothesis demonstrates how a high concentration of women in a few occupations has worked to lower their marginal productivity and hence their wages (Groshen, 1987; Reilly and Wirjanto, 1999). In 1970, half of the female labour force in Canada was concentrated in 15 detailed occupation titles (David, 1977). Women's occupational choices have

since diluted, and this has been argued as a reason for the narrowed gender wage gap (Mulligan, 2008). However, in their breakdown of these female-dominated professions, Fortin and Huberman (2002) found that despite the high concentration of women in clerical occupations in the 1960s, this career did pay more than health-care, services, sales, and blue-collar occupations. Still these high wages began to decline over time as the occupation became less significant with technological changes and unionization in other careers began to boost women's wages.

The devaluation theory is closely tied to the crowding hypothesis and suggests that sex composition determines an occupation's wages and that employers' ascribe a lower value on women's work, so when an occupation becomes female-dominated, wages stagnate or decline (England et al, 2007). In their econometric study assessing women's wages between 1950 and 2000 in the U.S., Levanon et al (2009) found some evidence for the devaluation theory even when educational and experience was controlled for, but when the data was divided into four time periods, there was no devaluation effect over time.

Dualism, or the segmentation of the labour market into a primary and secondary part, has also been used to explain supply theories of discrimination. The primary market is characterized by jobs that receive higher wages, good working conditions, job security, and opportunities for promotion, while those in the secondary market receive lower wages, few benefits, high turnover, and few opportunities for advancement (Doeringer and Piore, 1975). These job markets are able to stay segmented by factors such as the self-perpetuation of customs and tradition, unions, professional associations, and discrimination, which work to protect the primary market from competition.

Dualism can be applied to the gendered division of occupations, with women being concentrated in the secondary market as the low wages and unstable employment inherent in these jobs disproportionately affect women. The undesirable aspects of these jobs also work to increase absenteeism and turnover rates, thus further decreasing wages. The segmentation of the labour market was a key finding of Groshen (1987). In her study of five industries, she found little wage differential between men and women in the same occupation, but that it was relatively rare to find men and women working in the same occupation at all. Rather, she found that there was significant segregation of men and women within occupations and firms, which was a major factor in wage inequality. This happened in two ways: occupations that earned higher wages tended to be maledominated, and when a firm offered a subset of occupations higher wages, they also tended to hire only men. While definitions of occupations were not available, this may tie into the vertical segregation of men and women that has been found in other reports.

The queuing theory suggests that men and women prefer higher wage jobs, but employers prefer men, and if given a long queue of applicants for a position, firms will choose a man to employ (Reskin and Roos, 1990). In their econometric study assessing women's wages between 1950 and 2000 in the U.S., Levanon et al (2009) found little evidence of queuing in terms of the effect of wages on later sex composition, with the exception of the 1950s when some evidence for queueing was found.

# XVII. Conclusion

From being more than 50% of the family enterprise in rural Newfoundland and Labrador, women in the 1950s and 1960s saw their skills grow slowly defunct with the emergence of new technologies. Over time many women began entering the formal labour market, at first sticking to their traditional roles as caretakers, but increasingly have entered a wider range of occupations. Women's incomes have risen relatively to men's since 1961, but by 2011 women were still earning 66.1% of men's average annual earnings. Further investigation into the incidence of low income, nonwage benefits and benefits would be beneficial in creating a wider understanding of men and women's incomes.

While participation rates for men have changed little over the past fifty years, women are increasingly likely to participate in the labour market. Much of this growth has been due to the rise in married women seeking employment, as women without a husband have historically been more likely to work but at low absolute numbers. Further investigation into the effect of having children on participation rates and incomes would provide further insight into how women's double shift affects their careers.

The greater tendency for women to work part-time is often exalted as a key reason for the gender wage gap, and while this is true in Newfoundland and Labrador, men and women are equally likely to work full-year full-time, and have been for the majority of the time under investigation. This may hide, however, the tendency of many men in the trades sector to work over-time for short periods of time, thus allowing them to earn high incomes quickly.

In the examination of nine fairly different occupations, some interesting trends emerged. When women were first entering the labour force in 1970 they were less likely to work full-year full-time, and tended to earn less than 50% of what men did, even when they did work the same amount. There was a significant change in trends by 1980 when many more women had entered the labour market and their incomes began to rise. Afterwards, differences in occupations became more apparent. For occupations in teaching, such as elementary and kindergarten teachers, and university professors, the proportion of men and women working full-year full-time, and their incomes, had reached near gender parity by 2010. This was not true for other government regulated occupations such as nursing assistants, where women remained less likely to work fullyear full-time and in 2010 those that did earned only 75.1% of men's annual earnings who worked similar hours. Despite unionization and being employed in equal numbers, female fish plant workers are less likely to work full-year full-time and tended to earn 70% of men's incomes by 2010. The biggest gender wage gap was in public works and maintenance labourers where women were a significant minority and earned less than 50% of men's earnings. This is in contrast to accounting clerks, where men were the minority, but incomes for those working full-year full-time had reached near gender parity by 2010. What is most surprising is the consistency of women who work the same job and the same number of hours as men, but receive just a portion of men's incomes. While more investigation into this trend must be pursued, this does hint at labour market discrimination against women in Newfoundland and Labrador.

Educational attainment for men and women has grown considerably since 1961 when more than half of the population had less than a high school degree. By 2011 this had fallen to about 20% of men and women. Over this time period the number of men and women with a high school diploma has increased, but in 2011 was similarly at about 20% of men and 20% of women, suggesting the majority of the population has some form of higher education. While men are more likely to have a trades degree, women are more likely to have a university degree.

This paper is a first look at how men and women in Newfoundland and Labrador compare in the labour market. It is not a comprehensive overview of all data available in the Census of Canada and further research into the industries where people work, the participation rates of women with children, the incidence of low-income, class of worker, and how participation rates and earnings change based on locality would provide a more complete overview of the province's labour force. Furthermore, an econometric analysis using the Blinder-Oaxaca decomposition would give further insight into the explained and unexplained components of the gender wage gap.

# Appendix

# A. Population

1961	Statistics Canada. 1989. Table 1: Population 15 years and over by age groups
	and sex, showing highest level of schooling, for Canada, provinces and
	territories, 1951 to 1986 censuses $(1) - 20\%$ sample data "Population and
	Dwelling Characteristics. Schooling and major field of study." 1986 Census.
	Statistics Canada Catalogue No. 93-110. Ottawa.
1971	Statistics Canada. 1976. Table 19: Population 15 years and over, by sex,
	showing number and percentage in the labour force by level of schooling, for
	Canada and provinces, 1971. "Labour Force and Individual Income." 1971
	Census. Statistics Canada Catalogue No. 94-707. Ottawa.
1976	Statistics Canada. 1978. Table 15. Population 15 years and over by age groups
	and level of schooling, showing labour force activity and sex, for Canada and
	Provinces, 1976. "Labour Force Activity by Age, Sex and Educational
	Characteristics." 1976 Census. Statistics Canada Catalogue No. 94-806.
	Ottawa.
1981	Statistics Canada. 1984. Table 3: Population 15 years and over by age groups
	and sex, showing highest level of schooling, for Canada and Provinces, 1981.
	"Population – School attendance and level of schooling." 1981 Census.
	Statistics Canada Catalogue No. 92-914. Ottawa.
1986	Statistics Canada. 1989. Table 2: Population 15 years and over by age groups
	and sex, showing highest level of schooling, for Canada, provinces and
	territories, 1986 census – 20% sample data "Population and Dwelling
	<i>territories</i> , 1986 <i>census</i> – 20% <i>sample data</i> "Population and Dwelling Characteristics. Schooling and major field of study." 1986 <i>Census</i> .
	<i>territories, 1986 census – 20% sample data</i> "Population and Dwelling Characteristics. Schooling and major field of study." <i>1986 Census.</i> Statistics Canada Catalogue No. 93-110. Ottawa.
1991	<ul> <li><i>territories, 1986 census – 20% sample data</i> "Population and Dwelling</li> <li>Characteristics. Schooling and major field of study." <i>1986 Census.</i></li> <li>Statistics Canada Catalogue No. 93-110. Ottawa.</li> <li>Statistics Canada. 1993. <i>Table 2: Population 15 years and over by by age</i></li> </ul>
1991	<ul> <li><i>territories, 1986 census – 20% sample data</i> "Population and Dwelling Characteristics. Schooling and major field of study." <i>1986 Census.</i></li> <li>Statistics Canada Catalogue No. 93-110. Ottawa.</li> <li>Statistics Canada. 1993. <i>Table 2: Population 15 years and over by by age</i> groups and sex, showing highest level of schooling, for Canada, provinces and</li> </ul>
1991	<ul> <li><i>territories, 1986 census – 20% sample data</i> "Population and Dwelling Characteristics. Schooling and major field of study." <i>1986 Census</i>.</li> <li>Statistics Canada Catalogue No. 93-110. Ottawa.</li> <li>Statistics Canada. 1993. <i>Table 2: Population 15 years and over by by age</i> groups and sex, showing highest level of schooling, for Canada, provinces and territories, 1991–20% sample data. "The Nation: Educational attainment and</li> </ul>

	Ottawa.
1996	Compiled by the Community Accounts Unit based on custom tabulations from the
	Census of Population 1996, Statistics Canada.
	Statistics Canada. 1999. Population 15 Years and Over by Age Groups and
	Sex, Showing Highest Degree, Certificate or Diploma, for Canada, Provinces
	and Territories, 1986 to 1996 Census (20% Sample Data). "Nation Series:
	Complete Series." 1996 Census. Statistics Canada Catalogue No.
	93F0020XCB96004. Ottawa.
2001	Statistics Canada. 2002. Detailed Highest Level of Schooling (20), Age Groups
	(13B) and Sex (3) for Population 15 Years and Over, for Canada, Provinces,
	Territories, Census Metropolitan Areas and Census Agglomerations, 2001
	Census - 20% Sample Data. 2001 Census. Statistics Canada Catalogue No.
	97F0017XCB2001001 Ottawa.
2006	Statistics Canada. 2009. Highest Certificate, Diploma or Degree (14), Age
	Groups (10A) and Sex (3) for the Population 15 Years and Over of Canada,
	Provinces, Territories, Census Divisions and Census Subdivisions, 2006
	Census - 20% Sample Data. 2006 Census. Statistics Canada Catalogue No. 97-
	560-XCB2006008. Ottawa.
2011	Statistics Canada. 2013. Newfoundland and Labrador (Code
	10) (table). National Household Survey (NHS) Profile. 2011 National
	Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa.

## **B. Average Income**

1961	Statistics Canada. 1965. Table 21: Wage-Earners, 15 years of age and over, by
	occupation and sex, showing average earnings and the number of wage-
	earners by amount of earnings during the first 12 months prior to the census
	date, June 1, 1961, for Canada and the Provinces. "Labour Force: Earnings,
	hours and weeks of employment by wage earners by occupations - Provinces."
	1961 Census. Statistics Canada Catalogue No. 94-539. Ottawa.
1971	Statistics Canada. 1976. Table 29: Population 15 years and over, by sex,
	showing 1970 income groups for Canada and Provinces, urban size groups,
	rural non-farm and rural farm, 1971 "Labour force and individual income."
	1971 Census. Statistics Canada Catalogue No. 94-709. Ottawa.
1976	Not available.
1981	Statistics Canada. 1984. Table 1: Selected population, dwelling, household and
	family distributions, showing selected social and economic characteristics, for
	census divisions and subdivisions, 1981 "Census divisions and subdivisions:
	population, occupied private dwellings, private households and census and
	economic families in private households, selected social and economic
	characteristic." 1981 Census. Statistics Canada Catalogue No.93-215. Ottawa.
1986	Statistics Canada. 1989. Table 1: Population 15 years and over by sex and
	1980 and 1985 income groups in constant (1985) dollars, for Canada,
	Provinces and Territories, 1981 and 1986 Censuses-20% Sample Data.
	"Population and Dwelling Characteristics. Total Income-Individuals." 1986
	Census. Statistics Canada Catalogue No. 93-114. Ottawa.
1991	Statistics Canada. 1993. Table 1: Population 15 years and over by sex and
	total income groups in constant (1990) dollars for Canada, Provinces,
	Territories and Census Metropolitan Areas, 1985 and 1990 – 20% sample
	data. "The Nation: Selected Income Statistics." 1991 Census. Statistics
	Canada Catalogue No. 93-331. Ottawa.
1996	Statistics Canada. 1998. Population 15 years and over with employment
	income by sex, work activity and detailed occupation, showing number and
	average employment income in constant (1995) dollars, for Canada,
	provinces, territories, and CMAs, 1990 and 1995 censuses – 20% sample data.

	"Nation Series: Complete Series." <i>1996 Census</i> . Statistics Canada Catalogue No. 93F0020XCB96004. Ottawa.
2001	<ul> <li>Statistics Canada. 2002. Employment Income Groups (22) in Constant (2000)</li> <li>Dollars and Sex (3) for Population 15 Years and Over, for Canada, Provinces,</li> <li>Territories, Census Metropolitan Areas and Census Agglomerations, 1995 and</li> <li>2000 - 20% Sample Data. 2001 Census. Statistics Canada Catalogue No.</li> <li>97F0019X2001001. Ottawa.</li> </ul>
2006	<ul> <li>Statistics Canada. 2009. Employment Income Groups (21) in Constant (2005)</li> <li>Dollars, Work Activity in the Reference Year (3), Class of Worker (3) and Sex</li> <li>(3) for the Population 15 Years and Over With Employment Income of</li> <li>Canada, Provinces, Territories, Census Metropolitan Areas and Census</li> <li>Agglomerations , 2000 and 2005 - 20% Sample Data. 2006 Census. Statistics</li> <li>Canada Catalogue No. 97-563-XCB2006057. Ottawa.</li> </ul>
2011	<ul> <li>Statistics Canada. 2013. Newfoundland and Labrador (Code</li> <li>10) (table). National Household Survey (NHS) Profile. 2011 National</li> <li>Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa.</li> </ul>

### **C.** Median Income

1961	Statistics Canada. 1965. Table 9: Wage-earners, 15 years of age and over, by
	sex, showing median earnings and the number of wage-earners by amount of
	earnings during the 12 months prior to the census date, for Canada, the
	provinces and territories, 1951 and 1961. "Labour Force: Earnings and Weeks
	of Employment of Wage-Earners – Provinces; Incorporated Centres." 1961
	Census. Statistics Canada Catalogue No. 94-534. Ottawa.
1971	Statistics Canada. 1976. Table 29: Population 15 years and over, by sex,
	showing 1970 income groups for Canada and Provinces, urban size groups,
	rural non-farm and rural farm, 1971 "Labour force and individual income."
	1971 Census. Statistics Canada Catalogue No. 94-709. Ottawa.
1976	Not available.
1981	Statistics Canada. 1984. Table 1: Labour force activity of population, 15 years
	and over by sex, age groups and marital status, for Canada, urban size
	groups, rural non-farm and rural farm, and for provinces, urban and rural,
	1981. "Population – Labour Force Activity." 1981 Census. Statistics Canada
	Catalogue No. 92-215. Ottawa.
1986	Statistics Canada. 1989. Table 1: Population 15 years and over by sex and
	1980 and 1985 income groups in constant (1985) dollars, for Canada,
	Provinces and Territories, 1981 and 1986 Censuses-20% Sample Data.
	"Population and Dwelling Characteristics. Total Income-Individuals." 1986
	Census. Statistics Canada Catalogue No. 93-114. Ottawa.
1991	Statistics Canada. 1993. Table 1: Population 15 years and over by sex and
	total income groups in constant (1990) dollars for Canada, Provinces,
	Territories and Census Metropolitan Areas, 1985 and 1990 – 20% sample
	data. "The Nation: Selected Income Statistics." 1991 Census. Statistics
	Canada Catalogue No. 93-331. Ottawa.
1996	Statistics Canada. 1998. Population 15 years and over with employment
	income by sex, work activity and detailed occupation, showing number and
	average employment income in constant (1995) dollars, for Canada,
	provinces, territories, and CMAs, 1990 and 1995 censuses – 20% sample data.
	"Nation Series: Complete Series." 1996 Census. Statistics Canada Catalogue

	No. 93F0020XCB96004. Ottawa.
2001	Statistics Canada. 2002. Employment Income Groups (22) in Constant (2000)
	Dollars and Sex (3) for Population 15 Years and Over, for Canada, Provinces,
	Territories, Census Metropolitan Areas and Census Agglomerations, 1995 and
	2000 - 20% Sample Data. 2001 Census. Statistics Canada Catalogue No.
	97F0019X2001001. Ottawa.
2006	Statistics Canada. 2009. Employment Income Groups (21) in Constant (2005)
	Dollars, Work Activity in the Reference Year (3), Class of Worker (3) and Sex
	(3) for the Population 15 Years and Over With Employment Income of
	Canada, Provinces, Territories, Census Metropolitan Areas and Census
	Agglomerations, 2000 and 2005 - 20% Sample Data. 2006 Census. Statistics
	Canada Catalogue No. 97-563-XCB2006057. Ottawa.
2011	Statistics Canada. 2013. Newfoundland and Labrador (Code
	10) (table). National Household Survey (NHS) Profile. 2011 National
	Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa.

## **D. Labour Force Activity**

1961	Statistics Canada. 1965. Table 1. Number and percentage of the population in
	the labour force, by sex, for Canada and the provinces, 1911-1961. "Labour
	Force Historical Tables." 1961 Census. Statistics Canada Catalogue No. 94-
	501. Ottawa
1971	Statistics Canada. 1976. Table 4: "Labour Force and Individual Income:
	Labour Force Activity by Sex." 1971 Census. Statistics Canada Catalogue No.
	94-703. Ottawa.
1976	Statistics Canada. 1978. Table 10: Population 15 years and over by marital
	status, showing number and participation rates in the labour force by sex, for
	Canada and Provinces, 1971 and 1976. "Labour force participation rates
	by age and sex and by marital status and sex, 1971 and 1976. 1976
	Census. Statistics Canada Catalogue No. 94-804. Ottawa.
1981	Statistics Canada. 1984. Table 1: Labour force activity of population, 15 years
	and over by sex, age groups and marital status, for Canada, urban size
	groups, rural non-farm and rural farm, and for provinces, urban and rural,
	1981. "Population – Labour Force Activity." 1981 Census. Statistics Canada
	Catalogue No. 92-915. Ottawa.
1986	Statistics Canada. 1989. Table 3: Labour force activity of population 15 years
	and over by sex, age groups and marital status, for Canada, Provinces and
	territories, 1986 census – based on 20% sample data "Population and
	Dwelling Characteristics. Labour force activity." 1986 Census. Statistics
	Canada Catalogue No. 93-111. Ottawa.
1991	Statistics Canada. 1993. Table 1: Selected characteristics for census divisions
	and census subdivisions, 1991 census – 20% sample data. "Profile of Census
	Divisions and Subdivisions in Newfoundland – Part B." 1991 Census.
	Statistics Canada Catalogue No. 95-302. Ottawa.
1996	Statistics Canada. 1999. Table 1: Selected characteristics for census divisions
	and census subdivisions, 1996 census – 100% data and 20% sample data.
	"Profile of Census Divisions and Subdivisions in Newfoundland." 1996
	Census. Statistics Canada Catalogue No. 95-182-XPB. Ottawa.

2001	Statistics Canada. 2002. Table1: Selected characteristics for census divisions
	and census subdivisions, 1996 census $-100\%$ data and 20% sample data.
	"Profile of Census Divisions and Subdivisions in Newfoundland and
	Labrador." 2001 Census. Statistics Canada Catalogue No. 92-215-XPB.
	Ottawa.
2006	Statistics Canada. 2009. Selected characteristics for census divisions and
	census subdivisions, 2006 census – 100% data and 20% sample data. "Profile
	of Census Divisions and Subdivisions in Newfoundland and Labrador." 2006
	Census. Statistics Canada Catalogue No. 95-545-XPB. Ottawa.
2011	Statistics Canada. 2013. Newfoundland and Labrador (Code
	10) (table). National Household Survey (NHS) Profile. 2011 National
	Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa.

# E. Labour Force Activity by Marital Status

1961	Not available.
1971	Statistics Canada. 1978. Table 10: Population 15 years and over by marital
	status, showing number and participation rates in the labour force by sex, for
	Canada and Provinces, 1971 and 1976. "Labour force participation rates
	by age and sex and by marital status and sex, 1971 and 1976. 1976
	Census. Statistics Canada Catalogue No. 94-804. Ottawa.
1976	Statistics Canada. 1978. Table 10: Population 15 years and over by marital
	status, showing number and participation rates in the labour force by sex, for
	Canada and Provinces, 1971 and 1976. "Labour force participation rates
	by age and sex and by marital status and sex, 1971 and 1976. 1976
	Census. Statistics Canada Catalogue No. 94-804. Ottawa.
1981	Statistics Canada. 1998. Population 15 years and over by age groups and
	marital status, showing labour force activity and sex, for Canada, provinces
	and territories, 1981 to 1996 – 20% sample data. "Nation Series: Complete
	Series." 1996 Census. Statistics Canada Catalogue No. 93F0020XCB96004.
	Ottawa.
1986	Statistics Canada. 1998. Population 15 years and over by age groups and
	marital status, showing labour force activity and sex, for Canada, provinces
	and territories, 1981 to 1996 – 20% sample data. "Nation Series: Complete
	Series." 1996 Census. Statistics Canada Catalogue No. 93F0020XCB96004.
	Ottawa.
1991	Statistics Canada. 1998. Population 15 years and over by age groups and
	marital status, showing labour force activity and sex, for Canada, provinces
	and territories, 1981 to 1996 – 20% sample data. "Nation Series: Complete
	Series." 1996 Census. Statistics Canada Catalogue No. 93F0020XCB96004.
	Ottawa.
1996	Statistics Canada. 1998. Population 15 years and over by age groups and
	marital status, showing labour force activity and sex, for Canada, provinces
	and territories, 1981 to 1996 – 20% sample data. "Nation Series: Complete
	Series." 1996 Census. Statistics Canada Catalogue No. 93F0020XCB96004.

	Ottawa.
2001	Statistics Canada. 2002. Labour Force Activity (8), Age Groups (17B), Marital
	Status (7B) and Sex (3) for Population 15 Years and Over, for Canada,
	Provinces, Territories, Census Divisions, Census Subdivisions and
	Dissemination Areas, 2001 Census - 20% Sample Data. 2001 Census.
	Statistics Canada Catalogue No. 95F0377XCB2001001. Ottawa.
2006	Statistics Canada. 2009. Labour Force Activity (8), Presence of Children by
	Age Groups (11), Age Groups (9), Marital Status (7) and Sex (3) for the
	Population 15 Years and Over Living in Private Households of Canada,
	Provinces, Territories, Census Divisions and Census Subdivisions, 2006
	Census - 20% Sample Data. 2006 Census. Statistics Canada Catalogue No. 97-
	559-XCB2006017. Ottawa.
2011	Not available.

## **F.** Absolute numbers marital status

1961	Statistics Canada. 1965. Table 17. Labour force, 15 years and over, by
	occupations and sex, showing age group, marital status and schooling, for
	Canada, the provinces and territories, 1961. "Labour Force. Occupations
	by Sex, Showing Age, Marital Status and Schooling – Atlantic
	Provinces." 1961 Census. Statistics Canada Catalogue No. 94-510. Ottawa.
1971	Statistics Canada. 1976. Table 8: Labour Force 15 years and over, by detailed
	occupation and sex, showing age groups, marital status, and class of worker,
	for Canada and Provinces, 1971 "Occupations by sex showing age,
	marital status and class of worker for the Atlantic Provinces." 1971
	Census. Statistics Canada Catalogue No. 94-724. Ottawa.
1976	Statistics Canada. 1978. Table 10: Population 15 years and over by marital
	status, showing number and participation rates in the labour force by sex, for
	Canada and Provinces, 1971 and 1976. "Labour force participation rates
	by age and sex and by marital status and sex, 1971 and 1976. 1976
	Census. Statistics Canada Catalogue No. 94-804. Ottawa.
1981	Statistics Canada. 1984. Table 1: Labour force activity of population, 15 years
	and over by sex, age groups and marital status, for Canada, urban size
	groups, rural non-farm and rural farm, and for provinces, urban and rural,
	1981. "Population – Labour Force Activity." 1981 Census. Statistics Canada
	Catalogue No. 92-915. Ottawa.
1986	Statistics Canada. 1993. Table 3: Labour force activity of population, 15 years
	and over by sex, age groups and marital status, for Canada, Provinces, and
	Territories, 1986 Census – 20% Sample Data. "Population – Labour Force
	Activity." 1991 Census. Statistics Canada Catalogue No. 93-111. Ottawa.
1991	Statistics Canada. 1998. Population 15 years and over by age groups and
	marital status, showing labour force activity and sex, for Canada, provinces
	and territories, 1981 to 1996 – 20% sample data. "Nation Series: Complete
	Series." 1996 Census. Statistics Canada Catalogue No. 93F0020XCB96004.
	Ottawa.
1996	Statistics Canada. 1998. Population 15 years and over by age groups and
	marital status, showing labour force activity and sex, for Canada, provinces

	and territories, 1981 to 1996 – 20% sample data. "Nation Series: Complete
	Series." 1996 Census. Statistics Canada Catalogue No. 93F0020XCB96004.
	Ottawa.
2001	Compiled by the Community Accounts Unit based on custom tabulations from the
	Census of Population 2001, Statistics Canada.
2006	Statistics Canada. 2009. Labour Force Activity (8), Presence of Children by
	Age Groups (11), Age Groups (9), Marital Status (7) and Sex (3) for the
	Population 15 Years and Over Living in Private Households of Canada,
	Provinces, Territories, Census Divisions and Census Subdivisions, 2006
	Census - 20% Sample Data. 2006 Census. Statistics Canada Catalogue No. 97-
	559-XCB2006017. Ottawa.
2011	Statistics Canada. 2012. Newfoundland and Labrador (Code 10) and Canada
	(Code 01) (table). Census Profile. 2011 Census. Statistics Canada
	Catalogue no. 98-316-XWE. Ottawa.

### G. Weeks Worked

1961	Statistics Canada. 1965. Table 10. Wage-earners, 15 years of age and over,
	showing the number of wage-earners by weeks of employment by usual hours
	worked during the 12 months prior to the census date, June 1, 1961, for
	Canada, the provinces and territories. "Labour Force: Earnings and Weeks
	of Employment of Wage-Earners – Provinces; Incorporated Centres."
	1961 Census. Statistics Canada Catalogue No. 94-534. Ottawa.
1971	Statistics Canada. 1976. Table 20. Population 15 years and over by sex, age
	groups and school attendance, showing weeks worked in 1970, full or part-
	time, for Canada and Provinces, 1971. "Labour Force Activity – Work
	experience." 1971 Census. Statistics Canada Catalogue No. 94-779. Ottawa.
1976	Not available.
1981	Statistics Canada. 1984. Table 1: Population 15 years and over who worked in
	1980 by number of weeks worked in 1980 and whether these were mostly full-
	time/part-time, by sex, age groups and marital status, for Canada and
	Provinces, 1981 "Population - Work Activity in 1980." 1981 Census.
	Statistics Canada Catalogue No. 92-916 Ottawa
	Statistics Callada Callogae 10172 7101 Callwar
1986	Statistics Canada. 1989. Table 2: Persons 15 years and over who worked
1986	Statistics Canada. 1989. Table 2: Persons 15 years and over who worked         since January 1, 1985 by detailed occupation and sex, showing (a) labour
1986	Statistics Canada. 1989. Table 2: Persons 15 years and over who worked since January 1, 1985 by detailed occupation and sex, showing (a) labour force activity and (b) weeks worked in 1985, total and mostly full-time, for
1986	Statistics Canada. 1989. Table 2: Persons 15 years and over who worked since January 1, 1985 by detailed occupation and sex, showing (a) labour force activity and (b) weeks worked in 1985, total and mostly full-time, for Canada, Provinces and territories, 1986 census – based on 20% sample data
1986	Statistics Canada. 1989. Table 2: Persons 15 years and over who worked since January 1, 1985 by detailed occupation and sex, showing (a) labour force activity and (b) weeks worked in 1985, total and mostly full-time, for Canada, Provinces and territories, 1986 census – based on 20% sample data "Population and Dwelling Characteristics. Occupation." 1986 Census.
1986	Statistics Canada. 1989. Table 2: Persons 15 years and over who worked since January 1, 1985 by detailed occupation and sex, showing (a) labour force activity and (b) weeks worked in 1985, total and mostly full-time, for Canada, Provinces and territories, 1986 census – based on 20% sample data "Population and Dwelling Characteristics. Occupation." 1986 Census. Statistics Canada Catalogue No. 93-112. Ottawa.
1986 1991	<ul> <li>Statistics Canada. 1989. Table 2: Persons 15 years and over who worked since January 1, 1985 by detailed occupation and sex, showing (a) labour force activity and (b) weeks worked in 1985, total and mostly full-time, for Canada, Provinces and territories, 1986 census – based on 20% sample data "Population and Dwelling Characteristics. Occupation." 1986 Census.</li> <li>Statistics Canada Catalogue No. 93-112. Ottawa.</li> <li>Statistics Canada. 1998. Population 15 years and over by age groups and sex,</li> </ul>
1986 1991	<ul> <li>Statistics Canada. 1989. Table 2: Persons 15 years and over who worked since January 1, 1985 by detailed occupation and sex, showing (a) labour force activity and (b) weeks worked in 1985, total and mostly full-time, for Canada, Provinces and territories, 1986 census – based on 20% sample data "Population and Dwelling Characteristics. Occupation." 1986 Census.</li> <li>Statistics Canada Catalogue No. 93-112. Ottawa.</li> <li>Statistics Canada. 1998. Population 15 years and over by age groups and sex, showing work activity in reference year, for Canada, provinces and territories, 1986 census, showing work activity in reference year, for Canada, provinces and territories, 1986 census.</li> </ul>
1986 1991	<ul> <li>Statistics Canada. 1989. Table 2: Persons 15 years and over who worked since January 1, 1985 by detailed occupation and sex, showing (a) labour force activity and (b) weeks worked in 1985, total and mostly full-time, for Canada, Provinces and territories, 1986 census – based on 20% sample data "Population and Dwelling Characteristics. Occupation." 1986 Census.</li> <li>Statistics Canada Catalogue No. 93-112. Ottawa.</li> <li>Statistics Canada. 1998. Population 15 years and over by age groups and sex, showing work activity in reference year, for Canada, provinces and territories, 1981 to 1996 censuses. "Nation Series: Complete Series." 1996 Census.</li> </ul>
1986 1991	<ul> <li>Statistics Canada. 1989. Table 2: Persons 15 years and over who worked since January 1, 1985 by detailed occupation and sex, showing (a) labour force activity and (b) weeks worked in 1985, total and mostly full-time, for Canada, Provinces and territories, 1986 census – based on 20% sample data "Population and Dwelling Characteristics. Occupation." 1986 Census.</li> <li>Statistics Canada Catalogue No. 93-112. Ottawa.</li> <li>Statistics Canada. 1998. Population 15 years and over by age groups and sex, showing work activity in reference year, for Canada, provinces and territories, 1981 to 1996 censuses. "Nation Series: Complete Series." 1996 Census.</li> <li>Statistics Canada Catalogue No. 93F0020XCB96004. Ottawa.</li> </ul>
1986 1991 1996	<ul> <li>Statistics Canada. 1989. Table 2: Persons 15 years and over who worked since January 1, 1985 by detailed occupation and sex, showing (a) labour force activity and (b) weeks worked in 1985, total and mostly full-time, for Canada, Provinces and territories, 1986 census – based on 20% sample data "Population and Dwelling Characteristics. Occupation." 1986 Census.</li> <li>Statistics Canada Catalogue No. 93-112. Ottawa.</li> <li>Statistics Canada. 1998. Population 15 years and over by age groups and sex, showing work activity in reference year, for Canada, provinces and territories, 1981 to 1996 censuss. "Nation Series: Complete Series." 1996 Census.</li> <li>Statistics Canada Catalogue No. 93F0020XCB96004. Ottawa.</li> <li>Statistics Canada. 1998. Population 15 years and over by age groups and sex, statistics Canada Catalogue No. 93F0020XCB96004. Ottawa.</li> </ul>
1986 1991 1996	<ul> <li>Statistics Canada. 1989. Table 2: Persons 15 years and over who worked since January 1, 1985 by detailed occupation and sex, showing (a) labour force activity and (b) weeks worked in 1985, total and mostly full-time, for Canada, Provinces and territories, 1986 census – based on 20% sample data "Population and Dwelling Characteristics. Occupation." 1986 Census.</li> <li>Statistics Canada Catalogue No. 93-112. Ottawa.</li> <li>Statistics Canada. 1998. Population 15 years and over by age groups and sex, showing work activity in reference year, for Canada, provinces and territories, 1981 to 1996 censuses. "Nation Series: Complete Series." 1996 Census.</li> <li>Statistics Canada Catalogue No. 93F0020XCB96004. Ottawa.</li> <li>Statistics Canada. 1998. Population 15 years and over by age groups and sex, showing work activity in reference year, for Canada, provinces and territories, 1981 to 1996 census.</li> </ul>
1986 1991 1996	<ul> <li>Statistics Canada. 1989. Table 2: Persons 15 years and over who worked since January 1, 1985 by detailed occupation and sex, showing (a) labour force activity and (b) weeks worked in 1985, total and mostly full-time, for Canada, Provinces and territories, 1986 census – based on 20% sample data "Population and Dwelling Characteristics. Occupation." 1986 Census.</li> <li>Statistics Canada Catalogue No. 93-112. Ottawa.</li> <li>Statistics Canada. 1998. Population 15 years and over by age groups and sex, showing work activity in reference year, for Canada, provinces and territories, 1981 to 1996 censuses. "Nation Series: Complete Series." 1996 Census.</li> <li>Statistics Canada. 1998. Population 15 years and over by age groups and sex, showing work activity in reference year, for Canada, provinces and territories, 1981 to 1996 censuses. "Nation Series: Complete Series." 1996 Census.</li> <li>Statistics Canada. 1998. Population 15 years and over by age groups and sex, showing work activity in reference year, for Canada, provinces and territories, 1981 to 1996 census.</li> </ul>

	. Ottawa.
2001	Statistics Canada. 2002. Work Activity in 2000 (23), Age Groups (17B) and
	Sex (3) for Population 15 Years and Over, for Canada, Provinces, Territories,
	Census Divisions, Census Subdivisions and Dissemination Areas, 2001 Census
	- 20% Sample Data. 2001 Census. Statistics Canada Catalogue No.
	95F0377XCB2001001. Ottawa.
2006	Compiled by the Community Accounts Unit based on custom tabulations from
	the Census of Population 2006, Statistics Canada.
2011	Statistics Canada. 2013. Newfoundland and Labrador (Code
	10) (table). National Household Survey (NHS) Profile. 2011 National
	Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa.

# **H.Occupation**

1961	Statistics Canada. 1965. Table 21: Wage-Earners, 15 years of age and over, by
	occupation and sex, showing average earnings and the number of wage-
	earners by amount of earnings during the first 12 months prior to the census
	date, June 1, 1961, for Canada and the Provinces. "Labour Force: Earnings,
	hours and weeks of employment by wage earners by occupations – Provinces."
	1961 Census. Statistics Canada Catalogue No. 94-539. Ottawa.
1971	Statistics Canada. 1976. Table 17: Persons 15 years and over, who worked in
	1970, by detailed occupation showing 1970 employment income groups and
	sex, for Provinces, 1971. "Employment Income by Sex and Occupation, for
	Provinces." 1971 Census. Statistics Canada Catalogue No. 94-766. Ottawa.
	Statistics Canada. 1976. Table 18: Persons 15 years and over, who worked
	mainly full-time for the full 1970 year, by detailed occupation, showing 1970
	employment income groups and sex, for Canada and Provinces, 1971.
	"Income of Individuals: Employment Income for Full-Time, Full-Year
	Workers by Sex and Occupation, for Canada and Provinces." 1971 Census.
	Statistics Canada Catalogue No. 94-767. Ottawa.
1976	Not available.
1981	Statistics Canada. 1984. Table 1: Population 15 years and over who worked in
	1980 by sex and detailed occupation, showing 1980 employment income
	groups and persons who worked full-time, full-year (number with and average
	1980 employment income), for Canada and Province, 1981 – based on 20%
	sample data. "Population- Worked in 1980. Employment income by
	occupation." 1981 Census. Statistics Canada Catalogue No. 92-930. Ottawa.
1986	Statistics Canada. 1989. Table 1: Population 15 years and over with
	employment income by sex, work activity and detailed occupation, showing
	number and average 1980 and 1985 employment income in constant (1985)
	dollars, for Canada, provinces and territories, 1981 and 1986 censuses – 20%
	sample data "Population and Dwelling Characteristics. Employment income
	by occupation." 1986 Census. Statistics Canada Catalogue No. 93-116.

	Ottawa.
1991	Statistics Canada. 1993. Table 1: Population 15 years and over with
	employment income by sex, work activity and detail occupation, showing
	number and average employment income by constant (1990) dollars, for
	Canada, provinces, and territories, 1985 and 1990 – 20% sample data. "The
	Nation: Employment income by occupation." 1991 Census. Statistics Canada
	Catalogue No. 93-332. Ottawa.
1996	Statistics Canada. 1998. Population 15 years and over with employment
	income by sex, work activity and detailed occupation, showing number and
	average employment income in constant (1995) dollars, for Canada,
	provinces, territories, and CMAs, 1990 and 1995 censuses – 20% sample data.
	"Nation Series: Complete Series." 1996 Census. Statistics Canada Catalogue
	No. 93F0020XCB96004. Ottawa.
2001	Statistics Canada. 2002. Number and Average Employment Income (2) in
	Constant (2000) Dollars, Sex (3), Work Activity (3) and Occupation - 1991
	Standard Occupational Classification (Historical) (707A) for Population 15
	Years and Over With Employment Income, for Canada, Provinces, Territories
	and Census Metropolitan Areas, 1995 and 2000 - 20% Sample Data. 2001
	Census. Statistics Canada Catalogue No. 97F0019X2001001. Ottawa.
2006	Statistics Canada. 2009. Employment Income Statistics (4) in Constant (2005)
	Dollars, Work Activity in the Reference Year (3), Occupation - National
	Occupational Classification for Statistics 2006 (720A) and Sex (3) for the
	Population 15 Years and Over With Employment Income of Canada,
	Provinces and Territories, 2000 and 2005 - 20% Sample Data. 2006 Census.
	Statistics Canada Catalogue No. 97-563-XCB2006057. Ottawa.
2011	Statistics Canada. 2013. Employment Income Statistics in 2010 (7), Sex (3),
	Work Activity in 2010 (3), Highest Certificate, Diploma or Degree (6) and
	Occupation - National Occupational Classification (NOC) 2011 (693) for the
	Population Aged 15 Years and Over in Private Households of Canada,
	Provinces and Territories, 2011 National Household Survey. 2011 National
	Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa.

# I. Education

1961	Statistics Canada. 1989. Table 1: Population 15 years and over by age groups
	and sex, showing highest level of schooling, for Canada, provinces and
	territories, 1951 to 1986 censuses $(1) - 20\%$ sample data "Population and
	Dwelling Characteristics. Schooling and major field of study." 1986 Census.
	Statistics Canada Catalogue No. 93-110. Ottawa.
1971	Statistics Canada. 1976. Table 19: Population 15 years and over, by sex,
	showing number and percentage in the labour force by level of schooling, for
	Canada and provinces, 1971. "Labour Force and Individual Income." 1971
	Census. Statistics Canada Catalogue No. 94-707. Ottawa.
1976	Statistics Canada. 1978. Table 15. Population 15 years and over by age groups
	and level of schooling, showing labour force activity and sex, for Canada and
	Provinces, 1976. "Labour Force Activity by Age, Sex and Educational
	Characteristics." 1976 Census. Statistics Canada Catalogue No. 94-806.
	Ottawa.
1981	Statistics Canada. 1984. <i>Table 3: Population 15 years and over by age groups</i>
	and sex, showing highest level of schooling, for Canada and Provinces, 1981.
	"Population – School attendance and level of schooling." 1981 Census.
	Statistics Canada Catalogue No. 92-914. Ottawa.
1986	Statistics Canada. 1989. <i>Table 2: Population 15 years and over by age groups</i>
	and sex, showing highest level of schooling, for Canada, provinces and
	territories, 1986 census – 20% sample data "Population and Dwelling
	Characteristics. Schooling and major field of study." 1986 Census.
	Statistics Canada Catalogue No. 93-110. Ottawa.
1991	Statistics Canada. 1993. <i>Table 2: Population 15 years and over by by age</i>
	groups and sex, showing highest level of schooling, for Canada, provinces and
	territories, 1991–20% sample data. "The Nation: Educational attainment and
	school attendance." 1991 Census. Statistics Canada Catalogue No. 93-328.
	Ottawa.
1996	Compiled by the Community Accounts Unit based on custom tabulations from the
	Census of Population 1996, Statistics Canada.

	Statistics Canada. 1999. Population 15 Years and Over by Age Groups and
	Sex, Showing Highest Degree, Certificate or Diploma, for Canada, Provinces
	and Territories, 1986 to 1996 Census (20% Sample Data). "Nation Series:
	Complete Series." 1996 Census. Statistics Canada Catalogue No.
	93F0020XCB96004. Ottawa.
2001	Statistics Canada. 2002. Detailed Highest Level of Schooling (20), Age Groups
	(13B) and Sex (3) for Population 15 Years and Over, for Canada, Provinces,
	Territories, Census Metropolitan Areas and Census Agglomerations, 2001
	Census - 20% Sample Data. 2001 Census. Statistics Canada Catalogue No.
	97F0017XCB2001001 Ottawa.
2006	Statistics Canada. 2009. Highest Certificate, Diploma or Degree (14), Age
	Groups (10A) and Sex (3) for the Population 15 Years and Over of Canada,
	Provinces, Territories, Census Divisions and Census Subdivisions, 2006
	Census - 20% Sample Data. 2006 Census. Statistics Canada Catalogue No. 97-
	560-XCB2006008. Ottawa.
2011	Statistics Canada. 2013. Newfoundland and Labrador (Code
	10) (table). National Household Survey (NHS) Profile. 2011 National
	Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa.

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